

Initial Framework for Improving the Traffic Safety Culture in Kansas

By

Allison Bruner

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Chairperson Dr. Steven D. Schrock

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Dr. Thomas E. Mulinazzi

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Dr. Eric J. Fitzsimmons

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The Thesis Committee for Allison Bruner

certifies that this is the approved version of the following thesis:

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## CHAPTER 1 – INTRODUCTION

### Problem Statement

In 2012, 368 people lost their lives in traffic-related crashes in the State of Kansas (1). This statistic is not an extreme value for traffic fatalities within a year for Kansas or other similar states in the Midwest. AAA reports that traffic crashes in the United States contribute to injuring more than five persons every minute and killing one person every twelve minutes (2). This is no small matter when considering that the average societal cost of a fatal crash in 2011 was \$4,008,900 and an injury crash was \$82,600 (3). These amounts seem even larger when added up; the estimated cost of traffic crashes sum up to approximately 2.3 percent of the United States gross domestic product (GDP) (4). Compounding this with the current growth in the U.S, as the next ten years are projected to bring thirty million more residents of the U.S. and a corresponding additional \$3 trillion in GDP (2), one can expect the state of traffic safety will only become more critical with time.

In the United States the public accepts traffic crashes as a part of life. This acceptance is not unreasonable considering how often the average person is in a vehicle, riding a bicycle, or walking down the sidewalk. However, whenever travelers interact with the rest of the public on the transportation network, they are at risk of becoming a part of that statistic. It is this level of danger that this research intends to highlight to improve the safety of all road users.

### Safety Culture Description

In order to understand the concept of *safety culture* as a whole, one must first understand the notion of a culture. Culture is a tricky thing to describe because although it may shape a person's views and interactions, people are rarely aware of its effects. The AAA Foundation for

Traffic Safety reports that culture encompasses a person's beliefs, attitudes, and values while also providing the social framework within which people interact: a culture sets societal norms and what is considered acceptable by the general population (5). Thus, culture shapes the structure of interpersonal interactions, socially acceptable behaviors, and collective acceptance or rejection of notions such as safety.

Safety culture is defined by McDonald and Ryan as "The set of beliefs, norms, attitudes, roles, and social and technical practices that are concerned with minimizing the exposure of employees, managers, customers, and members of the public to conditions considered dangerous or injurious" (6). This definition is traditionally applied to corporate environments to promote safety in the workplace but can be expanded to describe the concept of traffic as well. In terms of traffic, safety culture refers to public beliefs and attitudes that contribute to their compliance or noncompliance with traffic safety regulations. Conversely, with the initial definition of safety culture, traffic safety culture includes not employees, managers, and customers, but is more geared towards the general public with inputs from engineers, legislators, law enforcers, and other leaders. The goal of improving the safety culture relating to any workplace or part of life is to increase compliance with the safety practices in place (i.e., increase the social acceptability of safety as a positive concept).

One example of how culture can influence traffic safety is the usage of motorcycle helmets. It is common knowledge in the United States that helmet use can help save motorists' lives and prevent serious brain trauma in the event of a motorcycle crash. That does not, however, mean that all motorcyclists use helmets. Many drivers seek out this kind of vehicle in defiance of safety norms because of its increased risks and exposure to dangerous elements. The

culture among motorcycle riders does not necessarily support safety as a positive concept, so many of the riders increase the risks for themselves by not wearing helmets.

Social issues such as this take more than an engineering solution to overcome; there must be changes to the traffic safety culture to affect positive results. In order to do that, decision makers must first identify the barriers to adoption of safety practices. They can then use that base knowledge to brainstorm strategies that will lead to behavioral changes, thus improving the traffic safety culture.

### **Research Objective**

The primary purpose of this research was to provide guidance to the Kansas Department of Transportation (KDOT) on strategies to improve the traffic safety culture in the districts they are forming to for this purpose. This will be accomplished through surveying other states' traffic safety culture programs, analyzing Kansas crash data, and compiling a relevant list of strategies to target the top concerns of each Kansas District.

### **Organization**

This thesis is organized into seven chapters. Chapter 1 introduces the concept of safety culture and how it relates to traffic concepts. Chapter 2 details components of a safety culture, existing studies of safety culture, and summarizes results found by implementing safety culture strategies. Chapter 3 describes the methodology of obtaining information on effective traffic safety culture strategies. Chapter 4 summarizes the national traffic safety culture data. Chapter 5 provides a description of each of the regional districts in Kansas as well the results of an analysis of recent Kansas crash data. Chapter 6 contains detailed information to address the issues cited in Chapter 5's crash data analysis. Finally, Chapter 7 gives a discussion of the data findings,

explains how this can be useful for the State of Kansas, and depicts ways that this information can help improve the traffic safety culture on a larger scale.



## **CHAPTER 2 – LITERATURE REVIEW**

### **Background**

Safety culture is a fairly new concept to the crash prevention community (both traffic and otherwise), having only been around since the late 1980s (7). The term “safety culture” came about as a result of the Chernobyl disaster in 1986 (8) as a way to describe the causes of the event. Even before the term’s inception, there were many developments in the 1960s that led to the less-than-optimal climate of traffic safety that we experience today. For example, the creation of the Interstate system, advancements of vehicle technology in terms of speed and power, as well as the emergence of compact cars (that may lack - or may be *perceived* to lack - crashworthy elements) all together expanded the transportation network while simultaneously filling it with vehicles with a wider variety of safety attributes than in previous decades (9). These conditions led to the public creating some irresponsible traffic habits such as speeding or aggressive driving that have trickled down into today’s culture.

This review will summarize relevant literature on the concept of safety culture as a whole and more specifically text pertaining to traffic safety culture.

### **Components of a Safety Culture**

One reason that safety culture has not been widely studied is that it is not something that is easy to change. In order to alter a safety culture you must bring the problem to the public’s attention, educate them, potentially change policies, increase law enforcement, or any combination of these. Safety culture is an issue that requires cooperation and collaboration between stakeholders.

## *Media*

Media is an important tool in changing a traffic safety culture. Media can take the form of ads on television (TV), radio, Public Service Announcements (PSAs), news segments, flyers, billboards, social media (Facebook, Twitter, etc.). Those do not necessarily have to come from a government entity; many advocacy groups, such as Mothers Against Drunk Driving (MADD), conduct their own media campaigns. The connectivity of our current society, while a problem in terms of distracted driving, can be a useful aid to reach the majority of the population through media. Wilde determined the four factors that impact the effectiveness of media:

- “The source – Credibility, expertise, trustworthiness, and similarity to the recipient;
- The content – relation to recipient’s views, concrete effectiveness, personally relevant, arousing attention, motivating appeals, [...];
- The channel of communication – Rates of exposure, immediacy to targeted behavior; and
- The recipient – opinion leaders or followers, persuadability, reactance, [...]” (9,10).

The effects of media are not absolute. One cannot guarantee that the media is having the desired effect or even being effective at all. One thing that media can shape is “what we think about” (9). Putting an issue in the media can cause the public to actively think about the topic being presented and potentially their role in creating or exacerbating the issue.

## *Education*

Education, working hand-in-hand with media, can have a large impact on traffic safety culture. Education is not limited to just school systems, it refers to informing a group of people about a topic they were unaware of and can extend to schools, community centers, or wherever people are willing to learn. However, this tool as it relates to positively impacting traffic safety culture is primarily used in the nation's school systems. The reason for this is to try and encourage positive association with traffic safety at a young age as a way to integrate safety into the youth driving culture. Education can be effective when relating new and relevant information to a group of people and is less effective on a knowledgeable group (5). An example of this is using education to try to change teen drivers' use of cell phones while driving. The problem is that teen drivers are, on the whole, aware of the safety implications of distracted driving so education alone will not effect change. As Lonero stated, "By itself, more concern for road safety will not necessarily improve drivers' behavior on the roads" (9). This illustrates how education is great conceptually, but alone may or may not effect change in behaviors.

## *Legislation*

Legislation on the national or local scale is also a good indicator of the state of traffic safety culture in an area. Laws provide the formal rules of the road on which the framework of driver expectations is built. There are several large struggles to consider when changing the legislative culture toward safety, the first of which is lobbying. Lobbying is the process by which a person or group tries to influence legislative decisions to align with their personal agendas. The problem with this is that in the United States, government-affiliated traffic safety professionals are unable to lobby for safer laws. This leaves the decisions to be made by lawmakers who may forgo the traffic safety solutions to support another law instead. Another

difficulty with legislative culture is that it is slow moving. It usually takes months to get just one law passed through the legislative system without any complications. That is not to say that it is always that easy; several states have had to take transportation bills to their state legislators many years in a row to get them to pass. Furthermore, because the system is slow moving the laws surrounding traffic safety reflect the past safety culture, not necessarily the current or upcoming traffic safety issues (9). The final obstacle in legislative culture is that legislators must consider how safety laws may infringe upon personal liberties and be sensitive to taking away personal choice as it is laid out in the constitution. This is illustrated in the example of mandatory occupant restraint laws: many states do not allow this because it violates an individual's right to choose how to behave.

Although it has limitations, legislative involvement is a crucial part to any safety culture. Without laws there can be no valid enforcement, no driver expectation, and thus no structure to our safety system.

### *Law Enforcement*

Law enforcement is the final component of a traffic safety culture. Traffic law enforcement encompasses many different types of agencies nationwide: local police, county sheriff, highway patrol, etc. The law enforcement officers in the United States society are typically what keep people from behaving and driving in an unsafe manner. When referring to law enforcement, it should be noted that whether the officers are *physically* there or not does not change the role of law enforcement as a whole because most drivers operate their vehicles as if officers are always there in order to avoid traffic citations. There are many different ways that officers can enforce our traffic laws: generally patrolling an area tends to increase safe driving

behaviors, writing traffic citations makes people think twice before violating a traffic law, and video cameras help to keep the public honest when officers are not around (11).

These components are important in defining and changing a traffic safety culture. It should be noted that any one of these alone would not be terribly effective. Strategies that employ more of these components together will be able to attack gaps in traffic safety culture more effectively.

### **Human Factors in Traffic Safety Culture**

While there are many things that we know about traffic safety culture and can clearly define, there are also many things that are unclear. One such element is individual behaviors while driving: what causes a driver to disobey the laws created to keep them safe? A summary of reports published for the AAA Foundation for Traffic Safety suggests that anonymity may contribute to noncompliance of traffic regulations (5). This report stated that driving is an anonymous act that allows people to behave in a more reckless manner because of the lack of personal accountability to those around them. The report goes further to illustrate the point with the example that typically a person would not cut into a line of people but the same person may feel no remorse about doing it in their vehicle to a line of cars. An accompanying theory is that road users often attribute blame for traffic crashes to others because it makes them feel less vulnerable, a concept called Defensive Attribution Theory (DAT) (12). DAT explains how a person can typically control what is happening inside their vehicle but has no control over another vehicle; so, by thinking the fault lies outside that person's own vehicle, it allows them to feel more in control of the situation and their safety. This notion is a standard defense mechanism that most drivers use constantly without even thinking about it. Yet another source,

focusing on bicycle traffic safety, indicates that an individual's involvement with peer groups may shape their safety behaviors (13). For example the study found that peer groups with positive perceptions of helmet use are more likely to see compliance with helmet use than those with negative perceptions (13).

While human factors in transportation typically applies to the general public road-using population, here the human factors of transportation professionals must also be examined. The Missouri Department of Transportation (MoDOT) completed a study on work zone safety that indicated that transportation professionals as a group may be blind to some of the safety concerns or general feelings about safety of the public (14). This study polled both MoDOT employees and public citizens to gauge the safety of Missouri work zones. Overall the results showed that MoDOT employees felt the work zones were completely safe and the public felt less so about it. The study even suggested that knowledge of transportation regulations and guidelines may create a false sense of safety for these professionals that the general public does not experience (14).

### **Safety Culture Studies**

Transportation safety culture is a broad concept that covers much more than just personal vehicles. It also includes entities such as commercial motor vehicles and transit agencies. A study of the safety culture of commercial motor vehicles in 2007 stated a safety culture was both iterative and reflective, "Within an organization, culture will influence individuals and individuals will define the culture," (15). Additionally, the study showed that compliance with safety regulations might be linked to home safety environment more than a work environment because amongst those commercial motor vehicle drivers who wear a seat belt, the top reasons for using a belt were not related to workplace safety (15). The point made by this research is that

strong leaders in the workplace and at home can impact change and increase safety. A similar study was conducted on transit traffic safety culture and it identified the top factors that led to an effective transit safety culture:

- Strong leadership, management, and organizational commitment to safety;
- Employee/union shared ownership and participation;
- Effective safety communication;
- Proactive use of safety data, key indicators, and benchmarking;
- Organizational learning;
- Consistent safety reporting and investigation for prevention;
- Employee recognition and rewards; and
- High level of organizational trust (16).

Many of the above-listed factors include the words ‘organizational’ and ‘employee;’ this applies well to a transit culture that is run by companies but can also be extrapolated to general transportation safety cultures by likening organizational/employee elements to societal ones.

Another group of road users that contribute to the transportation network’s safety culture but often get left out are the pedestrians. Pedestrians are some of the most vulnerable users on the road because of lack of protection, visibility, and the auto-dominated culture (17). In most crashes involving pedestrians, the pedestrian is found to be at fault (17). There are many high-risk pedestrian population groups such as the elderly, the disabled, minority groups, and children. Children provide an especially difficult scenario for many drivers because they are much smaller and thus harder to see approaching the road (18). While large cities such as New York and Los Angeles have a relatively developed pedestrian population and corresponding pedestrian safety

plan, many other emerging areas have rapidly growing pedestrian populations and lack any kind of pedestrian safety initiative at all (17). Pedestrians are and should be considered by decision-makers to be equal road users to vehicles.

### **Examples of Cultural Barriers to Improving Safety**

The Transportation Research Board published a series of reports on traffic safety issues such as seat belt use, impaired driving, etc. and corresponding countermeasures. One such report showed the effectiveness of primary seat belt laws on improving safety (19). A primary seat belt law is a law that states that a driver may be stopped and given a citation by an officer strictly for not wearing a seat belt, whereas the secondary seat belt law states that a violator may be given a citation for not wearing a seat belt but cannot be stopped by an officer for that reason alone.

When comparing seat belt usage rates for primary states versus secondary states, the results show that primary seat belt law states averaged 80 percent compliance compared to an average of 67 percent compliance in secondary seat belt law states, which is a large safety differential when considering seat belts reduce the risk of injury by more than 40 percent (19). Moreover this report discredited the popular theory among secondary states that a primary seat belt law will provide an opportunity for minorities to be discriminated against by showing that the citation rates were the same across all races (19). Some of these secondary states' legislatures do not necessarily support the culture of mandatory safety and think safety should be a personal choice.

Another report examined the viability of sobriety checkpoints. Fell et al. reported that sobriety checkpoints reduced impaired driving fatal crashes by approximately 20 percent, while also improving safety through detection of unbelted drivers, drivers with suspended licenses, contraband, criminals, etc. (20). This method of improving transportation was implemented



regularly in only eleven states in the United States despite the opportunities provided for federal funding for this very purpose (20). The reason for this is the culture surrounding sobriety checkpoints is negative; the legality of these checkpoints has even been tested in the United States legal system. The public perception is that it will add excess additional travel time for everyone and show no results when in fact most checkpoints run very efficiently and can save lives.

These are just two out of a countless number of proven measures to improve safety in which not all states participate. The federal government often financially incentivizes states to adopt programs like sobriety checkpoints or ignition interlocks for repeat driving under the influence (DUI) offenders and still states resist (21). This is due to their culture; the safest traffic systems in the world are that way because safety is a collective responsibility amongst all members of the community, not just the individual. Many citizens view the option to be safe as a personal choice and do not think about the potential impacts of that choice, both for their own well-being and potentially, in the event of a crash, economically for the taxpayer.

### **Successful Changes in Traffic Safety Culture**

In the United States changing the traffic safety culture is a relatively new concept. The U.S. has been primarily focused on fixing individual traffic safety elements. These measures have been effective in improving traffic safety but there are still areas where safety needs to be improved. Nations in Europe have been quicker to adopt traffic safety culture solutions.

France specifically has had a drastic change in safety since the turn of the century as a result of changes in traffic safety culture. In 2002 President Chirac was elected and he was the main driving factor in changing the safety culture (22). Chirac brought the issues of road safety to the forefront of his campaign and continued to stress its importance once elected. With his guidance, France put in place more strict regulations for drivers (particularly relating to speeding and impaired driving), increased enforcement of regulations, and had strong campaigns for these issues. As a result of these efforts, five years after Chirac was elected, France saw a reduction of 43 percent in the transportation-related fatality rates (22).

Sweden is another progressive nation that has seen success in implementing a safety culture strategy. Sweden was able to change their traffic safety culture through use of innovative programs rather than political champions as in France. One of the first improvements the Swedish Government made was to drastically lower its legal blood alcohol content (BAC) level for driving to 0.2g/l in 1994 which is still the lowest level in Europe (22). Also to protect against drunk driving, Sweden implemented Random Breath Testing (RBT); with RBT police may test a driver's breath with no reasoning or evidence. With rates as high as 380 drivers tested per 1,000, this measure combined with the low BAC reduced the alcohol-related fatalities by approximately 20 percent (22). Additionally the Swedes set more stringent speed limits for all road types with corresponding lower wintertime speed limits to account for more dangerous driving conditions. These speed regulations are a part of Sweden's "Vision Zero" strategy, which is not dissimilar to the United States' Toward Zero Deaths (TZD) program.

## Summary

Although traffic safety culture is a relatively new concept to be implemented in the United States, the literature surrounding it revealed several things:

- Safety culture is comprised of many different components that must be coordinated to ensure effectiveness;
- Many people drive as if it were an anonymous act and blame others for traffic crashes so they feel less vulnerable;
- Culture does not happen only on the roadway. Home life and social groups have a large impact on one's personal safety beliefs, values and actions;
- Although safety is named as a top priority in the nation, many states do not do what is necessary to make the roads safer due to cultural barriers; and
- Europe has been quicker to adopt traffic safety culture changes and has seen great success in improving safety in countries like France and Sweden.

The above literature facilitated the development of the methodology for this research, which can be found in the following chapter.

## **CHAPTER 3 – METHODOLOGY**

This research was conducted in several phases: a phone survey of state safety engineers, analysis of Kansas crash data, and additional research on traffic safety culture strategies for use in the Regional Safety Coalition Districts in Kansas.

### **Safety Culture Survey**

In order to best assist the Kansas Department of Transportation (KDOT) in their efforts to build an effective safety culture program, it was necessary to determine what effective traffic safety culture programs already exist in the U.S. To understand this, a survey was completed of other state highway agencies in the nation.

The questions for the survey were created with the intention of inspiring each state's Highway Safety Engineer to share successes and shortcomings of current and past traffic safety culture programs. In cooperation with KDOT, a list of questions was created covering topics from public awareness, to education, to policies relating to traffic safety culture. The survey covered recent traffic safety culture trends, communication with the public, and the most critical problems facing traffic safety today.

This survey was primarily conducted with the State Highway Safety Engineers from each state. Contact information for each state was provided by the Federal Highway Administration (FHWA) (23) and by KDOT. Contact with the states was first attempted by phone to complete the survey and in cases where that was not possible, follow-up correspondence went out through email.

Results from the individual state surveys were compiled into a master list. This list was sorted by question, where the question was followed by all of the answers from the various states. This was then analyzed in order to determine for trends among the answers for each question.

### **Analysis of Kansas Crash Data**

The next step after the traffic safety culture states survey was to perform analyses of Kansas crash data. These analyses were necessary in order to target the specific issues facing the Kansas districts.

Data for this analysis were provided by KDOT. To be thorough and in order to account for any regression to the mean bias, the analyses included data from the last five years. Using the Microsoft Access Program, queries were created with data for:

- Crash occupants, which already included fields for: driver age, seat belt use, number of occupants, and class of driver's license; and
- General crash information which already included fields for: county, intersection type, crash severity, crash class, alcohol involvement, drug involvement, lighting conditions, speed limit, weather conditions, environmental characteristics, roadway geometrics, day of crash, and number of pedestrians involved.

These queries were then exported into separate spreadsheets. Although the spreadsheets included data categories for the aforementioned fields (which will hereunto be referred to as variables), each spreadsheet contained additional data field categories with less useful information. This information that was deemed not useful was not further manipulated. The

variables were represented by names that were pre-determined in the KDOT system. Some names such as “NBR\_OF\_PEDESTRIANS” were self-explanatory when combined with the variable values (the numbers represent the number of pedestrians). Yet other names such as “ACCIDENT\_CLASS\_MHE” needed more explanation from the KDOT staff to determine that the variable was referring to the Most Harmful Event that contributed to the Accident Class (here the numbered values represent what type of crash it is, such as collision with an animal, fixed object, or other vehicles). The variable values that corresponded to other information (such as a number in the “ACCIDENT\_CLASS\_MHE” were determined using the Kansas Motor Vehicle Accident Report Coding Manual, Version 1.0 (24).

Within the two individual spreadsheets, a new page was created. On this page, a series of pivot tables were created. In building the pivot tables, the variable name was placed in the “Row Label” field and a count of that same variable was placed under the “Values” field. Doing this created a table that was organized by the different values and provided the count for how many of each value there were (i.e. the pivot table for the Number of Pedestrians would have a row for 0, 1, 2, etc. any number of pedestrians that were involved in any crash in Kansas in the last five years and next to those values would be the tally of how many crashes involved that many pedestrians).

Next, these count values were converted into percentages. The reason that percentages were more useful for this type of research is that it gives some sort of scope as to how large of an issue one item is. Using a raw number may not provide as much information as a percentage does, especially since there are large differences in the total crashes that happen in each district. This relates mostly to exposure of the roadway system to the general population driving on it, so in

western Kansas the exposure is lower than eastern Kansas due to the population differences. Additionally, the data were intended to be broken down into districts and using percentages will allow for districts to be compared to each other and the statewide average percentages. If raw numbers were used, it would be more difficult to compare number of a particular type of crash from one district to another district with significantly more crashes. These percentages were determined by dividing each count value by the total number of crashes listed in that spreadsheet. It was also verified that these percentages summed to 100 percent to ensure that there were no data discrepancies and that the pivot tables were providing accurate data.

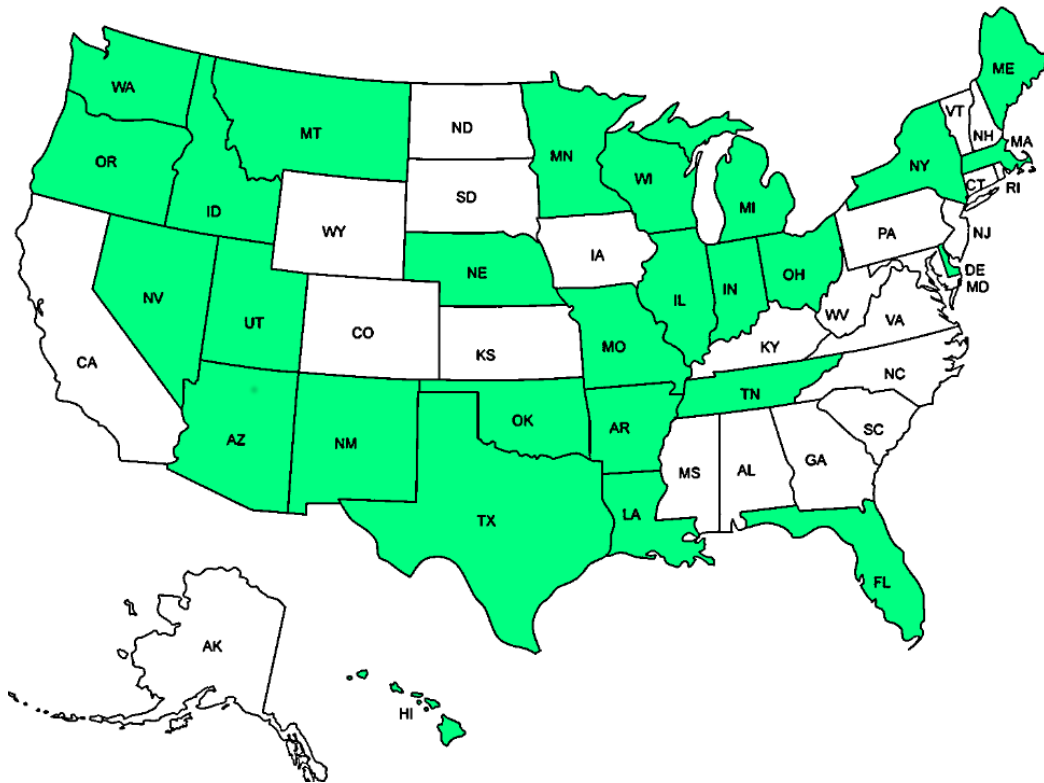
Once the statewide average percentages were found, the spreadsheet for general crash information was analyzed further. The crashes in this spreadsheet were organized by county number. Each number corresponded to a different county. This spreadsheet organized by counties was then copied into seven identical additional spreadsheets to divide into the seven districts. With the crashes organized numerically by counties, the counties that were not in a particular district (and the corresponding crashes of those counties) were deleted from that district's page.

Once all of the districts had separate spreadsheets (that contained only the crashes from the counties within that district), the same pivot tables as for the statewide averages were created for each district using the same process. These values, also like the statewide averages, were broken down into percentages.

These district average percentages were then compared to their corresponding statewide average percentages. It was noted where each district's data trends differed from those of the state, and those differences were detailed further in Chapter 5.

## CHAPTER 4 – TRAFFIC SAFETY CULTURE SURVEY RESULTS

The traffic safety culture survey was completed by twenty-seven of the fifty states within the United States. These states incorporated all different parts of the nation were surveyed including a state from outside the continental United States. A map of the surveyed states can be found in Figure 1: States with Completed Safety Culture Surveys. States that have completed surveys can be found highlighted in green and states without completed surveys are in white.



**Figure 1: States with Completed Safety Culture Surveys**



The complete list of states with completed surveys can be found below:

Arizona	Indiana	Montana	Oregon
Arkansas	Louisiana	Nebraska	Tennessee
Delaware	Maine	Nevada	Texas
Florida	Massachusetts	New Mexico	Utah
Hawaii	Michigan	New York	Washington
Idaho	Minnesota	Ohio	Wisconsin
Illinois	Missouri	Oklahoma	

This chapter contains a summary of the selected questions used in the survey along with any trends or interesting items found in the survey. A complete list of full answers for each question by each state can be found in Appendix B. (It should be noted that not all twenty-seven states answered every question.)

**Question 1: How would you describe the state of your organization’s internal safety culture?**

A common theme among answers for this question was these representatives claiming their offices have complete dedication toward traffic safety. Many states go so far as to mandate certain behaviors of their employees in vehicles such as seat belt use, safe driving behaviors, or no cell phone use. The state of Arizona has its employees sign a “Driving Safely Home” pledge and actively engages state employees in their own safety on the road. Other states such as Massachusetts, Montana, and New York understand the importance of safety in the workplace but have noticed deficiencies in their own internal safety culture.

**Question 2: Safety culture trends: what has changed in the last year or two in your state?**

Many of the states saw that a recent safety culture trend was the emergence of distracted driving as a serious concern. Three other states cited recent legalization of marijuana as an evolving area in which the consequences are uncertain. Yet other states had the unfortunate trend of increased crashes between vehicles and pedestrians.

**Question 3: What current activities are in place for public awareness?**

A high percentage of states responded with public awareness events and programs targeted at seat belt use, impaired driving and distracted driving.

**Question 4: How do you communicate with the public?**

Twenty-three out of the twenty-seven of the states surveyed reported that they used some form of social media (i.e. Facebook, Twitter, YouTube, etc.) along with more traditional forms of communication, including: media, websites, text alerts and billboards. From the way the survey was phrased, it was unclear if social media was the main communication mechanism for each state or which one of the social media platforms was used more.

**Question 5: Do you provide informational seminars at schools or publish handouts to keep at local schools?**

An overwhelming amount of states reported having programs in place for school seminars or had partners that accomplished this with state funding. Many of these programs were targeted at distracted and impaired driving, as that was a problem biased toward younger drivers.

**Question 6: What content are you trying to get out and who creates the content?**

Seven out of the twenty-seven states cited crash data as the main driver of content that gets pushed out through the states. Content for many of the other states was created through the Strategic Highway Safety Plan (SHSP) and focused on target areas.

**Question 7: Are there any initiatives to change state policies?**

Out of the responses, five states cited initiatives to implement a primary seat belt law. The remaining responses showed no real trends, but revealed interesting differences between the states. States such as New York were fairly progressive and did not cite need for improvements. At the time of the survey Louisiana had an initiative to legally remove 18-year olds from bars to improve the rates of underage drinking.

**Question 8: In light of the recent national push Toward Zero Deaths (TZD) do you sense any sort of urgency as it relates to changing the safety culture in your state?**

Eleven of the states that responded answered that their state had adopted the TZD program. Despite having adopted the program, two of those states claimed that the program had not yet made a real impact. New Mexico specifically has *not* embraced the TZD program. The representative stated that since crashes were still sharply rising, it seemed impractical for them to adopt the TZD program because their goals are just to keep crashes from increasing.

### **Question 9: What in your personal opinion is the most critical safety culture problem?**

Many of the states answered something related to the community adopting a sense of shared responsibility for safety or apathy of the public related to the problem. Other states cited lack of funding, distracted driving, or the fast-paced way people lead their lives meaning that quick fixes are rewarded over taking the time to find the proper solution to a problem.

### **Summary**

Many trends were revealed through the process of the survey, the most significant of which are summarized below:

- Some states showed the unfortunate trend of increasing pedestrian crashes while the other more common trend is that of an emerging distracted driving problem;
- Most states communicate through traditional means as well as more modern modes of communication such as social media;
- The content that most states push out is primarily data-driven;
- The states that do not have primary seat belt laws use that as a source for initiatives to change state policies; and
- Most states that responded have embraced the TZD plan and use it to shape their goals.

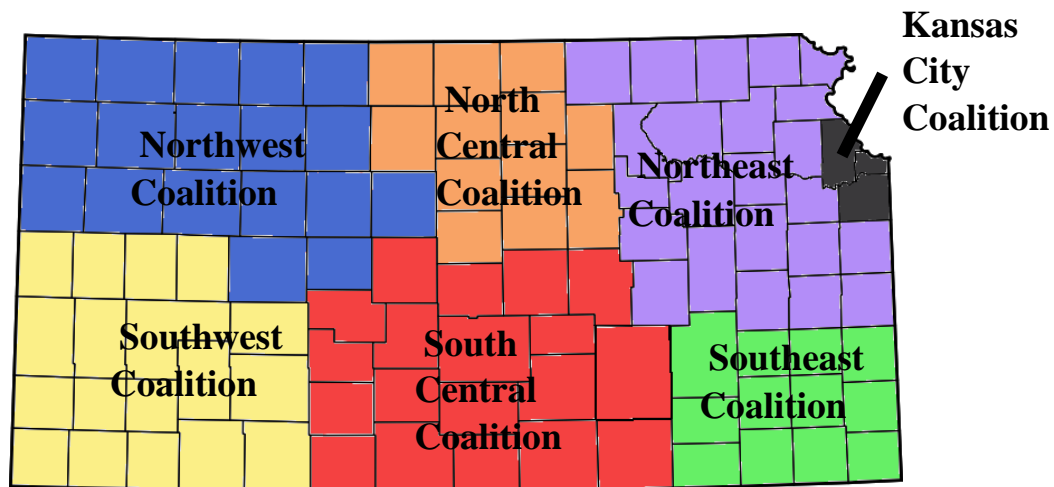
The process of surveying states was a vital component to gathering information about the current state of the nation's traffic safety culture. This step was a primary source for researching programs to be implemented in Kansas as outlined in Chapter 6.

## CHAPTER 5 – KANSAS DISTRICTS AND CRASH ANALYSIS

### About the Districts

At the time of this research, in the state of Kansas traffic safety culture was being considered on a smaller scale at the district level. At this level, decisions can be made about traffic safety issues with the confidence provided by accurate knowledge of local traffic safety issues. These districts were planned to be represented by Regional Safety Coalitions, which would make the decisions regarding traffic safety culture in their respective districts. Before being able to make recommendations for these districts, more information needed to be considered on the distinguishing factors between the districts.

Kansas is broken down geographically into seven districts in coordination with the Kansas Healthcare Coalitions seen in the figure below.



**Figure 2: Seven Kansas Districts**

It should be noted that these districts differ from the traditional six districts used by the Kansas Department of Transportation. Improving traffic safety culture across Kansas requires buy-in from more professions than transportation; it requires cooperation with local community

leaders, medical professionals, emergency responders and law enforcement officers. Since many of these partners had already come together within the Kansas Healthcare Coalitions, it was more professionally inclusive to use the Healthcare districts as opposed to the traditional KDOT districts. The following information refers to the *proposed* Coalition Districts.

## **Crash Analysis**

The crash analyses that were conducted revealed several things about the leading contributors of vehicle crashes in Kansas. It should be noted however, that the data used for this analysis were comprised of five years' worth of *reported* crashes; it is possible that the results may not perfectly represent the state of traffic safety in Kansas due to a lower reporting threshold. The FHWA estimates that nearly 10 million crashes per year go unreported (25), most of them PDO crashes. For this reason, lack of completeness of all PDO crash data, fatal and injury crashes were the primary subject for this analysis. Also, some issues in traffic safety cannot be summarized in terms of crash data such as drowsy driving or distracted driving due to difficulties in law enforcement finding conclusive evidence that these actions happened at a given crash. Since the data span the last five years, it accurately minimizes regression to the mean bias, but may not show more emerging recent trends. The way the data were analyzed the results were not exclusive, as to say a crash that contributes to alcohol involvement statistics may or may not also contribute to other crash statistics. Below are trends for the state of Kansas' fatal and injury crashes for the years between 2010 and 2014, inclusive:

- 5.5 percent of crashes involved pedestrians;
- 8.7 percent of crashes involved alcohol;
- 1.3 percent of crashes involved drugs of some kind;

- Crashes were more likely to occur on Friday than any other day of the week;
- The least amount of crashes occurred on Sundays;
- 0.6 percent of crashes resulted in fatalities and 22.5 percent of crashes involved injuries of some kind;
- 65.1 percent of crashes occurred at four-way intersections followed by 16.7 percent at T-intersection crashes and close behind were interchange crashes at 16.5 percent;
- 0.6 percent of crashes occurred in work zones;
- 4.6 percent of crashes involved unbelted drivers;
- 36.8 percent of crashes involved drivers under the age of 30 and 14.2 percent of crashes involved drivers over the age of 60; and
- The highest percentage of crash class comes from collisions with one or more moving vehicles with higher proportions also being represented by animal collisions and collisions with fixed objects.

The statewide averages for crash information were used as a comparison tool for the districts to find outstanding traits for each of them. Statistics were compared based on percentages rather than raw tallies to account for differences in district population sizes.

## Statewide Averages

**Table 1: Crash Class**

CRASH CLASS	
OTHER NON-COLLISION	1.5%
OVERTURNED/ROLLOVER	14.8%
-----COLLISION WITH-----	
PEDESTRIAN	3.1%
MOVING VEHICLE	56.1%
PARKED VEHICLE	2.0%
TRAIN	0.1%
CYCLIST	2.2%
ANIMAL	2.1%
FIXED OBJECT	17.7%
OTHER OBJECT	0.4%

**Table 2: Intersection Type**

INTERSECTION TYPE	
FOUR WAY INTERSECTION	65.0%
FIVE WAY INTERSECTION	1.3%
T-INTERSECTION	16.7%
Y-INTERSECTION	0.6%
L-INTERSECTION	0.5%
ROUNDAABOUT	0.4%
TRAFFIC CIRCLE	0.1%
PART OF INTERCHANGE	14.8%
OTHER	0.6%



**Table 3: Driver Age**

<b>DRIVER AGE</b>	
<15	4.5%
15 - 19	12.5%
20 - 24	13.8%
25 - 29	10.5%
30 - 34	8.9%
35 - 39	7.5%
40 - 44	7.2%
45 - 49	7.1%
50 - 54	7.3%
55 - 59	6.4%
60 - 64	5.0%
65 - 69	3.4%
70 - 74	2.2%
75 - 79	1.6%
80 - 84	1.2%
85 - 89	0.7%
90 - 94	0.2%
95 - 99	0.0%

**Table 4: Weather Conditions**

<b>WEATHER CONDITIONS</b>	
NO ADVERSE CONDITIONS	86.1%
RAIN/MIST/DRIZZLE	7.4%
SLEET/HAIL	0.4%
SNOW	2.5%
FOG	0.6%
SMOKE	0.0%
STRONG WIND	0.9%
BLOWING DUST/SAND	0.1%
FREEZING RAIN	0.9%
RAIN AND FOG	0.0%
RAIN AND WIND	0.2%
SLEET AND FOG	0.0%
RAIN AND WIND	0.5%
OTHER	0.3%

**Table 5: Geometric Road Characteristics**

ROAD CHARACTER	
STRAIGHT AND LEVEL	70.4%
STRAIGHT ON INCLINE	17.0%
STRAIGHT ON HILLCREST	1.9%
CURVED AND LEVEL	5.4%
CURVED ON INCLINE	4.3 %
CURVED ON HILLCREST	0.3%
OTHER	0.7%

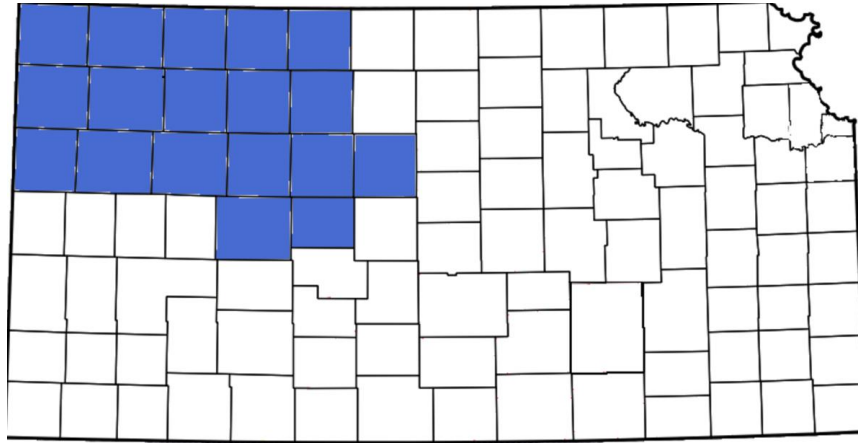
**Table 6: Light Conditions**

LIGHT CONDITIONS	
DAYLIGHT	68.9%
DAWN	1.9%
DUSK	2.6%
DARK: WITH STREETLIGHTS	14.4%
DARK: NO LIGHTS	11.9%
OTHER	0.3%

**Table 7: Speed Limit**

SPEED LIMIT	
20 mph	2.4%
25 mph	1.8%
30 mph	21.4%
35 mph	12.2%
40 mph	14.4%
45 mph	7.9%
50 mph	1.4%
55 mph	15.2%
60 mph	4.4%
65 mph	12.8%
70 mph	3.5%
75 mph	2.6%

## Northwest Coalition District



**Figure 3: Northwest Regional Safety Coalition District**

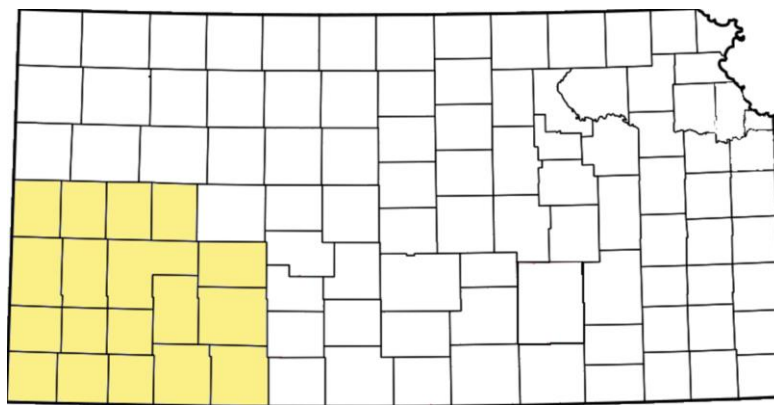
The Northwest Kansas Coalition is made up of eighteen counties: Cheyenne, Decatur, Ellis, Graham, Grover, Logan, Ness, Norton, Phillips, Rawlins, Rooks, Rush, Russell, Sherman, Sheridan, Thomas, Trego, and Wallace Counties (26). This district is comprised mainly of high plains used for agriculture (27,28). This district had the lowest population at 95,536 in 2010 (29), made up of some of the smaller cities in Kansas including Hays, Norton, Colby, and Oberlin.

The Northwest Coalition District contained 4.5 percent of Kansas's crashes in the last five years, which is to be expected given its low population. Some of the findings from the crash analysis for this district are found below:

- This district showed 30 percent more high speed (speeds of 55 miles per hour or greater) than the statewide average;
- This district had 5 percent more alcohol-related crashes than the statewide average, making it the highest rate of alcohol presence in crashes of any district;

- There were over 25 percent more overturned-vehicle crashes than the statewide average; and
- This district had approximately 6 percent fewer interchange-related crashes than the statewide average.

### **Southwest Coalition District**



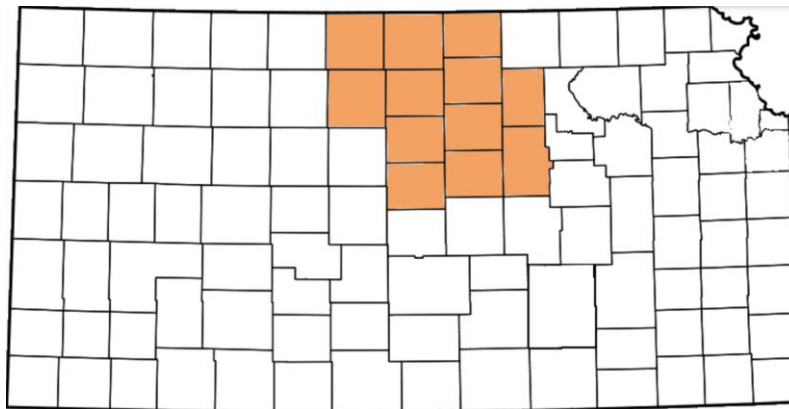
**Figure 4: Southwest Regional Safety Coalition District**

The Southwest Kansas Coalition is made up eighteen counties including: Clark, Finney, Ford, Grant, Gray, Greeley, Hamilton, Haskell, Hodgeman, Kearny, Lane, Meade, Morton, Scott, Seward, Stanton, Stevens, and Wichita Counties (26). Much like the Northwest Coalition District, this district contains mostly high plains with agriculture along with river lowlands (27). Also like its northern counterpart, this district has a fairly low population at only 148,399 in 2010 (29), the majority of whom are located in cities such as Dodge City, Garden City, and Liberal.

The Southwest Coalition District contained 4.6 percent of crashes in Kansas over the last five years, not dissimilar from the Northwest District. Some of the findings from the crash analysis for this district are found below:

- This district had almost 5 percent more alcohol-related crashes than the statewide average;
- This district showed over 16 percent more overturned-vehicle crashes than the statewide average;
- This district had 12 percent fewer crashes at interchanges than the statewide average; and
- This district showed nearly 10 percent more unlit nighttime crashes than the statewide average.

#### **North Central Coalition District**



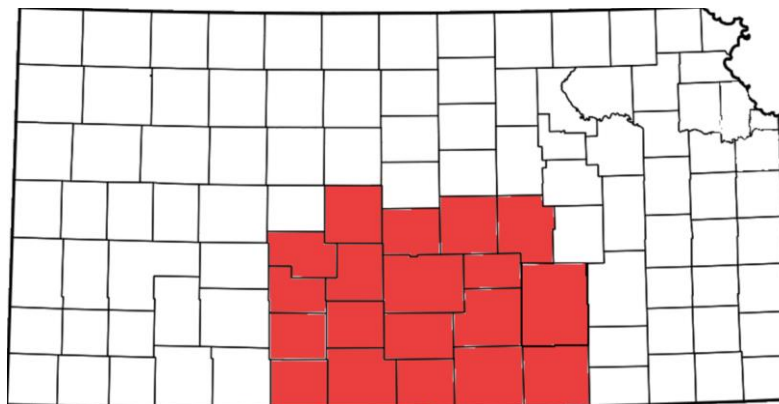
**Figure 5: North Central Regional Safety Coalition District**

The North Central Kansas Coalition is made up of twelve counties including: Clay, Cloud, Dickinson, Ellsworth, Jewell, Lincoln, Mitchell, Osborne, Ottawa, Republic, Smith, and Saline Counties (26) and is home to the Smoky Hills (27). This district too has a low population at 131,198 persons in 2010 (29). Some of the more populous cities in this district are Salina, Abilene, and Concordia.

The North Central Coalition district was home to 5.0 percent of crashes in Kansas in the last five years, just over that of the previous two districts. Some of the findings from the crash analysis for this district are found below:

- This district showed over 11 percent more high-speed crashes (55 miles per hour or higher) than the statewide average;
- This district showed 9 percent more overturned-vehicle crashes than the statewide average;
- This district had half the amount of interchange crashes as the statewide average; and
- This district had 5 percent more crashes on straight and level roadways than the statewide average.

#### **South Central Coalition District**



**Figure 6: South Central Regional Safety Coalition District**

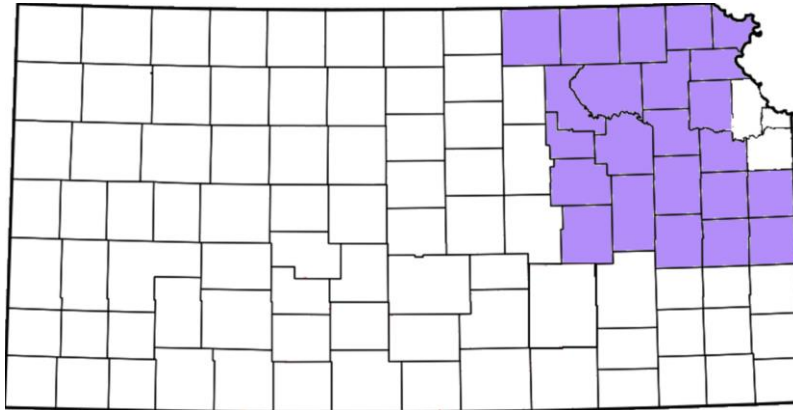
The South Central Kansas Coalition is made up of nineteen counties including: Barber, Barton, Butler, Comanche, Cowley, Edwards, Harper, Harvey, Kingman, Kiowa, Marion, Nowata, Osage, Pottawatomie, Shawnee, and Wagonwheel Gap.

McPherson, Pawnee, Pratt, Reno, Rice, Sedgwick, Stafford, and Sumner Counties (26). This is the district with the highest population at 850,780 in 2010 (29). This is due in large part to the City of Wichita, which is the largest city in Kansas, along with the smaller cities of El Dorado, Hutchinson, and McPherson.

The South Central Coalition District also had the highest proportion of crashes in Kansas in the last five years at 28.9 percent. Some of the findings from the crash analysis for this district are found below:

- This district had more crashes with vehicles containing two occupants than one occupant which differs from the statewide trend;
- This district showed nearly 5 percent more lower-speed crashes (less than 55 miles per hour) than the statewide average;
- This district had the second lowest rate of alcohol prevalence in crashes in the state; and
- This district showed 14 percent more crashes on straight and level roadways than the statewide average.

## Northeast Coalition District



**Figure 7: Northeast Regional Safety Coalition District**

The Northeast Kansas Coalition is made up of twenty-three counties including: Anderson, Atchison, Brown, Chase, Coffey, Doniphan, Douglas, Franklin, Geary, Jackson, Jefferson, Linn, Lyon, Marshall, Miami, Morris, Nemaha, Osage, Pottawatomie, Riley, Shawnee, Wabaunsee, and Washington Counties (26). This district is located in one of the more populous areas of the state with 660,265 residents in 2010 (29). Some of the larger cities in this district are Topeka (the capital city of Kansas), Lawrence, Manhattan, and Emporia.

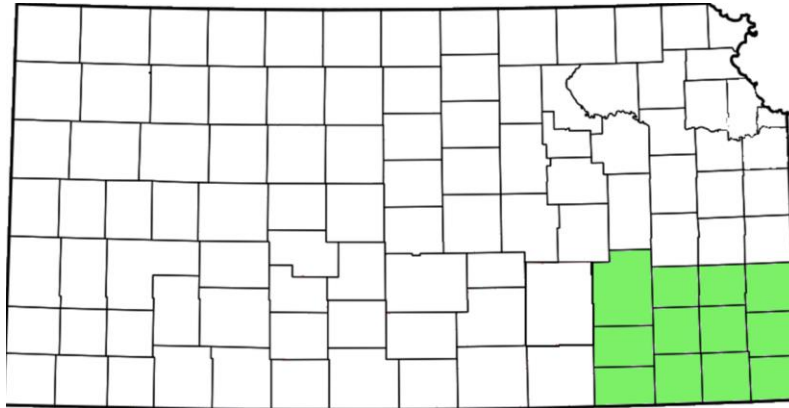
The Northeast Coalition District held 24.6 percent of Kansas's crashes from the last five years, which is proportional to the high population in this district. Some of the findings from the crash analysis for this district are found below:

- This district showed 6 percent fewer crashes that involved vehicle-to-vehicle collisions;
- This district had more than double the amount of crashes on straight and inclined roadways; and



- This district had half as many interchange-related crashes as the statewide average.

### **Southeast Coalition District**



**Figure 8: Southeast Regional Safety Coalition District**

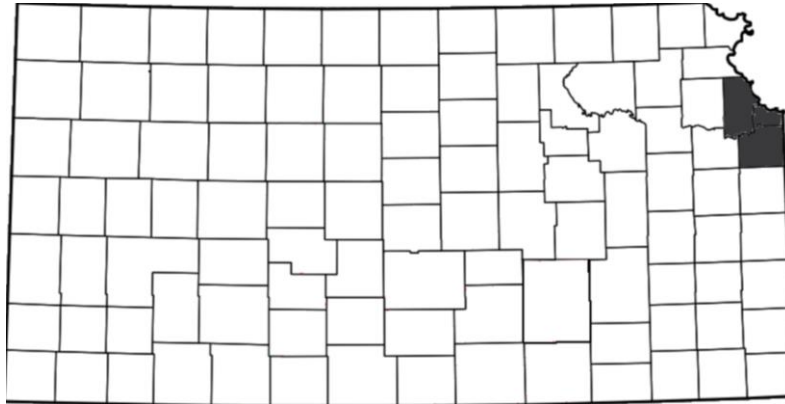
The Southeast Kansas Coalition is made up of twelve counties including: Allen, Bourbon, Chautauqua, Cherokee, Crawford, Elk, Greenwood, Labette, Neosho, Montgomery, Wilson, and Woodson Counties (26). This district is made up of primarily the Osage Cuestas region (27) that is utilized for crops, livestock grazing, and oil and gas (28). It also had a population of 188,824 in 2010 (29) and is home to the cities of Independence, Yates Center, Pittsburg and Chanute.

The Southeast Coalition District was home to 6.8 percent of crashes in Kansas in the last five years. Some of the findings from the crash analysis for this district are found below:

- This district showed almost 20 percent more high-speed crashes (55 miles per hour or greater) than the statewide average;
- This district had 7 percent more crashes involving animals than the statewide average; and

- There were 12 percent fewer interchange-related crashes in this district than the statewide average.

### **Kansas City Coalition District**



**Figure 9: Kansas City Regional Safety Coalition District**

The Kansas City Coalition is made up of three counties including: Johnson, Leavenworth, and Wyandotte Counties (26). This district has the second largest population in Kansas at 777,991 persons in 2010 (29), and being only three counties, this area also has the highest population density in Kansas. As this district's name would suggest, this area contains the Kansas City Metro area, which is where the majority of the population resides as well as several major interstate highways.

The Kansas City Coalition District contained 25.7 percent of the crashes in Kansas in the last five years. Some of the findings from the crash analysis for this district are found below:

- This district had more crashes with vehicles containing two occupants than one occupant which differs from the statewide trend;
- This is the district with the lowest percentage of alcohol-related crashes;

- This district had almost double the amount of crashes at interchanges than the statewide average; and
- This district had over 8 percent more low-speed crashes (less than 55 miles per hour) than the statewide average.

## **Summary**

The process of completing the crash data analysis revealed several things about the condition of safety in the state of Kansas, specifically identifying issues such as: roadway geometry, alcohol involvement, crash class, crash severity, weather/light conditions, etc. It is clear, with more than a third of crashes coming from younger drivers (under the age of thirty), that this should be a top concern for all of the Regional Safety Coalitions in Kansas. There was also a trend of more overturned vehicle crashes in the western part of the state than the eastern portion. It should also be noted that some of the districts with lower populations saw more high-speed crashes whereas the increased low-speed crashes occurred in the district with the highest population. Additionally some of those lower population districts had fewer interchange crashes; traditionally there are more highways where there are more people and as a result more interchanges. This means that districts with lower populations had a lower exposure to interchanges, which is why there were fewer interchange related crashes. Another finding is that some of the more prominent and newsworthy traffic issues, such as alcohol-related incidents and unbelted drivers, were underrepresented in the crash data. This might suggest that these issues relate more to impacting crash severity than to being a high proportion of crash causes.

## CHAPTER 6 – SAFETY CULTURE PROGRAMS

This chapter details the programs identified both by the twenty-seven states surveyed in the safety culture survey and through further web research. It should be noted that this is not a complete list of all state programs; moreover, excellent programs on traffic safety culture are put on by groups or entities such as Mothers Against Drunk Driving (MADD) or insurance companies that can be valuable. Aspects of each program are described along with any associated costs and ultimately are evaluated based on their viability for implementation in the districts of Kansas. Additionally, suggestions are made for how to improve the programs for use in the districts.

### Impaired and Distracted Driving

#### *Drunk Goggles*

**Description:** “Drunk” or impaired goggles are removable eyewear that gives the wearer equivalent vision to that of an impaired person. When a person puts on these goggles their vision is distorted and the simplest mechanical tasks become increasingly difficult as if a person was over the legal BAC limit. Along with *drunk* goggles, several companies, such as Fatal Vision, also make goggles to simulate drugged or drowsy driving (30).



**Figure 10: "Drunk" Goggles (30)**

**Cost:** These goggles have a relatively low cost at just over \$100 per pair.

**Applicability:** Implementing these goggles would be easy in any of the Coalition Districts. Any of the districts could invest in several pairs of these for just a few thousand dollars and use them in high schools, at Department of Motor Vehicles (DMVs), or in Driver's Education courses. Using these goggles is a literal way to show drivers how alcohol or drugs affect their functioning and this method can have great success when implemented properly.

**Resources:** Many states have already implemented these in high school and other such programs. Information for this tool can be found at: <http://fatalvision.com/fatal-vision-goggles.html> (30)

### *Drive Sober or Get Pulled Over*

**Description:** "Drive Sober or Get Pulled Over" is a national campaign targeted at drunk driving. This includes such media as PSAs, television and radio ads, and billboards. The most notable recent contribution from this campaign are the television commercials that depict impaired drivers as being immersed in alcoholic beverages within their car and that liquid spilling out when said driver rolls down the window for the law enforcement officer that inevitably pulls them over (31). These ads also depict law enforcement officers as being present but often unseen as a way to show that if one drives drunk they will be caught.



**Figure 11: Drive Sober Advertisement (31)**

**Cost:** The main cost of implementing this program comes in the form of advertisements; local television ads can cost up to \$1,500 for one 30-second commercial in 2008 whereas radio commercials often cost more around \$500 per week (32). Additionally, posters can be printed to get this campaign message out at a low cost and this program's web page is already set up to easily share on social media for free. For this program to be fully effective though, the advertisements should be accompanied by increased law enforcement on the issue of drunk driving which can have significant costs in law enforcement hours.

**Applicability:** This campaign as it is may not be very applicable to the Regional Safety Coalitions of Kansas. Advertisements can be very expensive and this is a one-dimensional program. Since this was designed as a national campaign, coalitions could modify it to be less costly (see additional options above listed under *Cost*) and when public participation component is included, it could be very successful. For example, it could be a competition between counties within a district to see which could have a higher percentage of the population share this message on social media.

**Resources:**

<http://www.nhtsa.gov/drivesober/> (33)

## **Young Drivers**

### *Sudden Impact*

**Description:** “Sudden Impact” is a program targeted at high school sophomores in Louisiana that shows all of the consequences of driving impaired. The students are put through a seven-hour program on impaired driving as well as a fatal crash simulation. This program allows students to see the “medical, law enforcement, and victim perspective” (34) on traffic crashes.

**Cost:** The costs for this program are primarily tied up in time devoted by participating partners. This could be a relatively cheap option to implement if a partnership can be formed with local law enforcement, medical professionals, and educators to create this program. Additionally, this program could operate with volunteers from these fields. There are no necessary physical materials needed for this, although visual aids and written material may enhance the program, so the overhead cost has the potential to be very low.

**Applicability:** This program could be adapted to fit the needs of the Regional Safety Coalitions in Kansas. To recreate the program as it is in Louisiana, Kansas would need the cooperation of the educational, medical, and law enforcement professions to create the content and devote time to the program. The program can be downsized to include fewer parties or to not include the crash simulation to save on cost or technical involvement.

### **Resources:**

Dan Magri

(225)379-1871

Louisiana Department of Transportation

[https://www.facebook.com/SuddenImpactLouisiana/info?tab=page\\_info](https://www.facebook.com/SuddenImpactLouisiana/info?tab=page_info) (34)

### *Teen Drive With CARE*

**Description:** This is a program that emphasizes for young drivers to drive with Courtesy, Attention, Responsibility, and Experience (CARE) while they are learning to drive within the Graduated Driver's Licensing system in Florida (35). This program's purpose is not only to educate children to drive safely but also to educate parents on ways to teach children to drive safely. This program was created by a partnership with the Orlando Regional Medical Center, Department of Motor Vehicles, and the Florida Department of Transportation and is run through the Orlando Regional Medical Center. Each program is put on by trained medical professionals, lasts approximately 45 minutes, and can be targeted towards either parents or children (36). This program uses statistics as well as demonstration tools, such as drunk goggles, to emphasize the message that safe driving requires all the elements set forth in CARE.

**Cost:** As Florida has implemented it, this program is free to all schools, churches, and other community organizations. The cost would be primarily in time dedication to create the program and to put it on; there are smaller additional costs such as any program materials the presenters would want to use (i.e. drunk goggles).

**Applicability:** This is a program that could be easily implemented in Kansas. It would take willing participation from the medical community and other partners, but the fact that it involves both young drivers and their parents provides a level of redundancy that makes it more likely to succeed than other similar programs. The structure of the Kansas Regional Safety Coalitions is meant to include medical personnel participation, so a program such as this could build off of the strength of the participating groups.



**Resources:**

Joseph Santos

(850)414-4097

Florida Department of Transportation

[http://www.flhsmv.gov/teens/parent\\_home.html](http://www.flhsmv.gov/teens/parent_home.html) (35)

*Peer-to-Peer Campaigns*

**Description:** This is a program run in Missouri where high school students create campaigns to improve traffic safety that are targeted at their peers: fellow high school students. Students are in a competition to have the best campaign, which the Missouri Department of Transportation actually uses.

**Cost:** The costs of this program are low: time devotion in schools for students to create the campaigns, time to sift through the campaigns and pick a winner, and then costs to use the campaign. Running the student-created campaign can be as simple as printing large-scale posters to put in all schools and other youth-centered areas which is not a great expense or implementation could be expanded to be a larger run campaign and put it onto billboards or other higher-visibility areas.

**Applicability:** This is a program that could be easily used in the Regional Coalitions of Kansas. Since this is a teen-targeting-teen program it has the potential to be more effective than an adults targeting teens campaign. To be most effective, the program would need to have mandatory participation from all students of a certain grade each year and could be coupled with a scholarship program/fund to increase interest from students.

**Resources:**

Jeff Padgett

(573)522-6197

Missouri Department of Transportation

*Ford Driving Skills for Life*

**Description:** This is a program put on by Ford Motor Company to teach newly licensed drivers critical skills that they would not have learned in a standard driving course. This program has a web-based component that is available to everyone but the main part of the program is the driving events Ford puts on in different areas where teens will get in the car with professional drivers and go through several challenges. The areas that are emphasized in this program are: “hazard recognition, vehicle handling, speed management, and space management” (37). There is an additional component that focuses on distracted and impaired driving that shows teens the real dangers of not focusing solely on the road.

**Cost:** This is a free program to all teens and parents. It is a national program put on by Ford so the costs are incurred by Ford. There may however, need to be a partnership with the state government and Ford to implement this program as none of the driving events currently take place in Kansas.



**Figure 12: Ford Driving Skills For Life (37)**

**Applicability:** For most of the Kansas Regional Coalitions, this is not at all applicable. That is because the driving events that Ford holds for this are in major cities across the United States and most cities in Kansas are unlikely to make that list. This could be a possibility for the Kansas City District Coalition because of the high population and existence of a large racetrack. Accomplishing this would probably require meetings with Ford and a potential partnership with the DOT to get Kansas City as one of the event locations.

**Resources:**

<https://www.drivingskillsforlife.com/> (37)

### *Battle of the Belt*

**Description:** “Battle of the Belt” is a program put on in areas of Missouri where local high schools compete with each other to get the highest rate of usage of seat belts. To determine seat belt usage, a person must monitor the exits of the participating school properties and count drivers who are/are not wearing seat belts. This program takes six weeks that contains two surprise seat belt usage tallies and several weeks of distributing information (38).

**Cost:** This is a lower-cost option to implement; the main cost is the manpower to count seat belt use of all the vehicles leaving the schools. To reduce that cost, volunteers or school employees could be used to count vehicles. Additionally, the materials passed out in the schools could be minimized to keep costs down.

**Applicability:** This is an easy program for the Kansas Regional Safety Coalitions to implement. The costs are minimal and a good way to increase teen buy-in to a program is to make it a competition as this program has done.

### **Resources:**

Jeff Padgett

(573)522-6197

Missouri Department of Transportation

[http://www.modot.org/safety/BOTB\\_SafetyBeltCompetitionRules.htm](http://www.modot.org/safety/BOTB_SafetyBeltCompetitionRules.htm) (38)

### *Strive for a Safer Drive*

**Description:** This is a program implemented in Michigan that partners with *Ford Driving Skills for Life* to get teens involved in traffic safety. Students from different schools must lead groups that will compete and create traffic safety campaigns focusing on any of a number of different topics: seat belt use, speeding, underage drinking/impaired driving, distracted driving, and winter driving (39). The student groups will develop events to engage their communities in their campaign and give a final presentation where a winning group will be selected. At the end students will participate in the ride/drive events put on by *Ford Driving Skills For Life*.

**Cost:** This program does require a moderate monetary investment. Each school is given a certain amount of money for its student group to use in its campaign, which could be costly, depending on how large the scale of the campaigns would be.

**Applicability:** This solution is not very applicable to the Regional Safety Coalitions in Kansas. It requires a partnership with the *Ford Driving Skills for Life* program (37), which as previously mentioned is not likely to happen in the rural areas of Kansas. It only benefits/effects the students who choose to participate in the groups that create the campaigns; it does not help all students or young drivers. Furthermore, there is a bias for this program to benefit students that are already aware of or involved in traffic safety issues; most students that choose to get involved in traffic safety already understand its potentially severe consequences. Efforts could be better spent targeting all student drivers.

**Resources:**

Kathy Farnum

(517)241-2528

Michigan Department of Transportation

[http://www.michigan.gov/msp/0,4643,7-123-72297\\_64773\\_58984---,00.html](http://www.michigan.gov/msp/0,4643,7-123-72297_64773_58984---,00.html) (39)

*Zero Teen Fatalities*

**Description:** Zero Teen Fatalities is a program used in Nevada that “seeks to educate young drivers about the importance of being safe behind the wheel” (40). This is a program where young drivers gain points by using social media to create original messages geared to improving traffic safety. The more posts about traffic safety, the more points a contestant gains.

Additionally, contestants can gain points by participating in traffic safety events in their area put on by *Zero Teen Fatalities* (40). Prizes are distributed monthly and at traffic safety events to the top point contributors.



**Figure 13: Zero Teen Fatalities (40)**

**Cost:** This can be a relatively inexpensive program to implement. The costs incurred by this program would depend mostly on what type of traffic safety events and prizes are used because the social media infrastructure already exists and is free to use.

**Applicability:** This is a program that may or may not be effective in Kansas. This program appears to need a lot of initiative on the part of the young drivers and that can be hard to encourage. If the program was to be publicized in schools and incentivizing prizes were received it could be very successful, otherwise perhaps not.

**Resources:**

Ken Mammen

(775)888-7335

Nevada Department of Transportation

<http://zeroteenfatalities.com/program-rules/> (40)

*Project Extra Mile*

**Description:** Project Extra Mile is a statewide effort in Nebraska to prevent underage drinking. It involves a series of partnerships that emphasize: “policy initiatives, enforcement collaborations, education and awareness, media advocacy, and youth leadership” (41). This program is based around the concept that underage drinking is not the sole responsibility of the youth, but rather a community effort to support the culture that underage drinking is unacceptable. This program sponsors regular meetings, holds training and advocacy events, and more.

**Cost:** Since this is a fairly comprehensive program, the associated cost is relatively high. This involves changing policies through lobbying, increasing enforcement, and raising awareness, which are all fairly sizeable financial commitments by themselves.

**Applicability:** This is not likely to be effective as a whole program in Kansas. Certain aspects of the program such as increased enforcement, or education and awareness can be implemented but it is too comprehensive to be executed at the Regional Coalition level in Kansas. The underlying message for this campaign should not be ignored though; the responsibility to prevent underage drinking lies with the community, not just the underage persons, and this message could be communicated at the Regional level.

**Resources:**

Fred Zwonechek

(402)471-2515

Nebraska Department of Transportation

<http://www.projectextramile.org/> (41)

**Seat Belt Use**

*Click It or Ticket*

**Description:** Click It or Ticket is a national campaign focusing on increasing seat belt usage.

This campaign uses television and radio advertisements as well as PSAs to encourage the public to put safety first and “buckle up” when getting in a vehicle (42). In many of the states, the *Click It or Ticket* message is accompanied with signs along the road to notify users that it is illegal to drive unbelted.



**Cost:** This national campaign allocates funds for the states to have extra enforcement just to enforce seat belt compliance at different points throughout the year. This enforcement requires no additional costs from states or localities but running the advertisements and purchasing road signs will contribute to more costs locally.

**Applicability:** This is a program that can be easily implemented in Kansas' Regional Safety Coalitions. Certainly the coalitions should at least utilize the national funding to enforce seat belt use when those opportunities arise. Advertisements for this campaign may be particularly effective when used in combination with televised sporting events and other popular programming.

**Resources:**

<http://www.texasclickitorticket.com/> (42)

*Buckle Up Montana*

**Description:** Similar to *Click It or Ticket*, Buckle Up Montana is a program to increase awareness about the life-saving abilities of a seat belt. The difference is that Montana lacks a primary seat belt law so the "Ticket" portion of the previous campaign does not apply. This campaign is geared not towards enforcement but mostly public awareness of how serious this issue is in Montana and the potentially deadly consequences of driving unbelted (43).

**Cost:** This campaign is mostly about awareness and media so the costs would relate to advertisements on TV or radio or printed materials.

**Applicability:** This campaign does not apply to issues in Kansas as much as *Click It or Ticket* does due to the current primary seat belt law in effect in Kansas.

**Resources:**

Audrey Allums

(406)444-4210

Montana Department of Transportation

<http://buckleup.mt.gov/> (43)

**Pedestrian Safety**

*Safe Routes to School*

**Description:** Safe Routes to School is a national program that allocates funding to build up safe sidewalks and routes for children to walk to school (44). It is a program is targeted at improving pedestrian safety.

**Cost:** This program is one that provides funding to help low income areas with pedestrian projects but most projects also require additional funding to complete said projects.

**Applicability:** This program is not very applicable for Kansas because pedestrian safety is not one of the primary concerns for this state and also because most of Kansas is too rural to allow children to walk to school.

**Resources:**

<http://www.saferoutesinfo.org/> (44)

*See! Be Seen!*

**Description:** This is a program in effect in New York that is targeted at pedestrian safety. This program is one that emphasizes the importance for pedestrians to pay attention to the road and be visible to other road users (45). This and other similar messages are placed in visible areas such as on billboards and street corners.



**Figure 14: See! Be Seen! Advertisement (45)**

**Cost:** The costs of this program are based in mostly advertising on television, radio and on billboards.

**Applicability:** This program is not applicable to the Regional Safety Coalitions in Kansas because again pedestrian safety is not one of the most important safety concerns in the state. Furthermore large sums of money spent on pedestrian safety campaigns would be wasted due to the small proportion of pedestrians on the roadways.

**Resources:**

Rob Limoges

(518)457-2452

New York Department of Transportation

[https://www.health.ny.gov/prevention/injury\\_prevention/pedestrians.htm](https://www.health.ny.gov/prevention/injury_prevention/pedestrians.htm) (45)

**General Road Safety**

*Pull Aside – Stay Alive*

**Description:** Pull Aside Stay Alive is a program in place in Arizona that works to educate drivers on what to do in the event of a dust storm on the roadway (46). This program urges drivers to pull on the side of the road, as the name suggests, and complete other safety measures when a dust storm begins. This is accomplished through the use of paid media, news stories, and printed media.

**Cost:** This program's costs come in the form of media which could be significant given a large program or the media could be minimized to keep costs down.

**Applicability:** While useful and topical in Arizona, this program has no relevance in Kansas or in its Regional Coalitions. Kansas is not prone to dust storms so monies would be better spent on

more relevant issues. However, a similar effort could be geared toward Kansas-related weather, such as what to do during a winter storm, or a severe thunderstorm.

**Resources:**

Kohinoor Kar

(602)712-6857

Arizona Department of Transportation

<http://www.pullasidestayalive.org/> (46)

*Just Drive CEO Challenge*

**Description:** This is a program in place in Idaho that places the responsibility for traffic safety on the companies that work within the state. The program *challenges* the leadership for said companies to adopt the program of traffic safety for their employees. The CEOs of each company will sign a pledge stating that they will encourage and incentivize their employees to put safety first in their vehicles both during and outside of standard working hours (47). This allows for positive press for the companies, lower indirect insurance costs due to safer employees, and theoretically a safer traffic culture.

**Cost:** This program requires initiative from the DOT to create relationships with companies and pay for press to publicize the program.

**Applicability:** This is a fantastic program that would do well in Kansas. Perhaps the program could be renamed and targeted just at companies not CEOs to better suit the Kansas corporate landscape. This could be easily implemented in each one of the seven coalitions and could serve to greatly improve traffic safety. Additionally, once the program is up and running the costs of

publicity would be low as participating companies would publicly label themselves as such to boost public image and non-participating companies would have the public appearance of not caring about employee safety. Over time this effort of tying employment with traffic safety could shift the culture of the region.

**Resources:**

Brent Jennings

(208)334-8557

Idaho Department of Transportation

<http://www.ktvb.com/story/news/local/outreach/just-drive/2015/04/02/take-the-just-drive-ceo-challenge/70842326/> (47)

*Operation Life Saver*

**Description:** This is a program geared towards eliminating traffic crashes associated with at-grade rail crossings (48). Operation Life Saver promotes its message through education and increasing public awareness, enforcement, and engineering of safe solutions.

**Cost:** This program's cost come in the form of publicity for the program: advertisements on television and radio, billboards, educational programs, etc. Depending on the level of involvement there could also be increased enforcement costs or even additional infrastructure costs associated with grade separated rail crossings.

**Applicability:** This could be a good program for areas with a high rate of railroad crashes.

While there are rail crashes in Kansas, this is not one of the leading crash causes found in any of

the regions studied in Chapter 5, so this should not be one of the primary programs for the Regional Coalitions to focus on.

**Resources:**

Dan Magri

(225)379-1871

Louisiana Department of Transportation

<http://www.laoperationlifesaver.org/about.aspx> (48)

*123 Safe Days of Summer*

**Description:** This Texas-based program “emphasizes safety on roadway work sites during the busiest time of the year” (49) meaning summertime. The goal of this program is to reduce the number of workplace incidents by focusing first on safety in the workplace in terms of: seat belts, protective equipment, proper techniques for equipment and heavy lifting, etc. This is a program put on by the DOT for all traffic work zones.

**Cost:** The cost of this program involves the cost of any printed materials for display at work zones as well as time spent training or on work sites emphasizing safety.

**Applicability:** This is a smaller-scale program to help improve work zone safety that may or may not be effective. Certainly work zone safety is a topic of concern in Kansas as in many states but spending any sizeable amount of money on such a minimal program may not make the most fiscal sense for Kansas. Additionally, a program of this type may be better suited to a statewide program rather than at the regional level.

**Resources:**

Meg Moore

(512)416-3135

Texas Department of Transportation

<ftp://ftp.dot.state.tx.us/pub/txdot-info/pio/tnews/tnews0604.pdf> (49)

*Advertising Crash Statistics*

**Description:** Many states, such as Illinois, have recently taken the approach of making sure the driving population is aware of the seriousness of traffic issues by publicizing traffic statistics.

This primarily comes in the form of billboards and changeable message signs around highways.

Typically the message includes a tally of traffic deaths that gets updated throughout the year.

This type of program targets the general public's view that traffic crashes happen to *other* people and encourages them to not become a statistic.



**Figure 15: Traffic Deaths Sign (50)**



**Cost:** This program's cost has the potential to be low, as Kansas has already invested in some of the infrastructure (i.e., the CMSs) to execute this program. Should a more in-depth program be desired, billboards could also be purchased to advertise the message. The benefit of using CMSs is that as traffic statistics change, the signs can be updated to reflect statistics easier than billboards can be. This can also be advertised on television or radio ads or on social media as needed.

**Applicability:** This program could be easily implemented in more urban areas of Kansas. In order to most effectively use CMS and billboards for the program, it would need to be implemented on major highways in order to reach the highest number of drivers. If other ads (such as television or radio) are to be used, there is less of a geographical constraint, meaning that this program could be implemented in rural areas as well.

**Resources:**

<http://www.wbez.org/series/curious-city/deal-those-traffic-death-highway-signs-106569> (50)

**Summary**

Many programs have been adopted by states throughout the nation. Most of these programs are focused on creating a safer youth driving culture, while some others target other traffic safety culture issues such as drunk driving or seat belt use. Although these programs are well thought out and planned in each state, not all of them apply to the issues faced in Kansas. A discussion of these programs and how they relate to the Regional Safety Coalition effort in Kansas is presented in the next chapter.

## **CHAPTER 7 – FINDINGS AND DISCUSSION**

Traffic safety culture is a complex component of today's mobility. Changing this type of culture is a more involved process than remedying other traffic issues such as reducing speed limits. It requires cooperation of multiple fields to address necessary legislation, education, and law enforcement. As a relatively newer concept for the transportation profession, states trying to impact traffic safety by changing their traffic safety culture are innovators in the field. Viewing a traffic safety culture as the problem indicates that decision-makers are able to think more holistically about traffic safety problems instead of pinpointing smaller issues as barriers to traffic safety.

### **Publicized versus Data-Driven Issues**

The safety culture survey and the crash data analysis were able to provide a comparison between the largest issues contributing to traffic safety in Kansas and the types of issues other states in the nation are spending their money on. A common thread between the two is the appearance of younger drivers; drivers under the age of thirty made up over a third of drivers in crashes in Kansas and most of the programs cited by other states have a youth component.

In the above example of younger drivers, it was found that the research and the data supported the same conclusion; that was not the case for all traffic safety issues. For example, alcohol-related crashes and seat belt use were highly publicized in programs (even combining with the youth component for some programs) but the percentage of crashes that had alcohol involved or included unbelted drivers was very low. That is not necessarily to say that these are not issues. Just because something does not show up in the crash analysis does not mean that these issues are not still prevalent on the road for trips that do not end in crashes. The lack of

high proportions of other highly publicized issues reflects that many states are focusing on reducing their crash severities over reducing their overall crashes.

### **Implications for Kansas**

Traffic safety culture is a relatively newer concept for the State of Kansas. As the Regional Safety Coalitions are being formed in each district, this research will serve to guide them along a path to safer roads via new traffic safety culture strategies. The districts will be able to access a broad list of safety culture programs that have been successfully implemented in other parts of the nation and are already rated for their applicability in Kansas. This reduces the pressure for districts to brainstorm ideas on their own. Within the first meetings for each coalition, active results can be obtained using this information for programs to look into or pursue for issues facing each district. The following tables will serve this purpose.

**Table 9: Program Applicability in Kansas: Strong**

<b>Program Name</b>	<b>Category</b>
<b>Sudden Impact</b>	Young Drivers
	Distracted Driving
<b>Teen Drive with CARE</b>	Young Drivers
<b>Peer-to-Peer</b>	Young Drivers
<b>Battle of the Belt</b>	Young Drivers
	Seat Belt Use
<b>Just Drive CEO Challenge</b>	General Road Safety
<b>Advertising Crash Statistics</b>	General Road Safety
<b>Click It or Ticket</b>	Seat Belt Use

**Table 10: Program Applicability in Kansas: Medium**

<b>Program Name</b>	<b>Category</b>
<b>Ford Driving Skills for Life</b>	Young Drivers
<b>Drive Sober or Get Pulled Over</b>	Impaired Driving
<b>Strive for a Safer Drive</b>	Young Drivers
<b>Zero Teen Fatalities</b>	Young Drivers

For some of the traffic safety issues that are prevalent all across the state, it might benefit districts to combine forces and attack the problem with similar solutions. To do this a program could be implemented on a statewide, rather than district-wide, basis or neighboring districts could choose to work together and implement the same strategy.

### **Areas for Future Research**

Throughout the course of this research, many interesting topics arose that could not be completed within the scope of the research; those items are detailed here as areas that should be explored for future research in conjunction with or to expand upon this project.

Further development of the crash data provided by KDOT would be beneficial. Although this research was able to distinguish several statewide and district specific trends, these items could not be compared. Additional research should be completed in order to compare the statewide trends on a district-to-district basis. Moreover, researchers could delve deeper into some of the issues such as seat belt use to see if the presence of those elements impacts the likelihood for a severe crash versus one with only property damage. Finally, it would be useful for researchers to be able to break down issues such as alcohol involvement crashes by age to see if underage drinking and driving is more prevalent than legal age drinking and driving.

Another area that could be researched further is how would a state's participation in a larger multi-state traffic safety coalition affect their traffic safety culture. One example of this is the MINK coalition that brings together the states of Missouri, Iowa, Nebraska, and Kansas to ensure the safety of the Missouri River Corridor (51). It could be a worthwhile endeavor to study

how Kansas' participation in large scale and small-scale safety cultures work with or against each other.

A final field for further research is determining the effectiveness of this project. Researchers could contact Kansas's Regional Safety Coalitions in five or ten years to determine how they have used this research. Coalitions can specify what was useful and what items would be useful moving forward. Future research could also study the process on how priorities and decisions were made within the coalitions more generally, as a way for other states to learn how to improve the process. Along with the effectiveness of this research, investigation could be done as to whether organizing these Regional Safety Coalitions have been successful as a means to mitigate traffic safety culture issues. This research could also compare and contrast to the formation of regional safety districts in other states such as Louisiana to see if one has been more effective than the other and to determine what differences led to those results.

## **Conclusion**

Traffic safety culture is a concept that encompasses the public's beliefs and actions regarding traffic safety; in short, it is the framework on which the transportation network exists. The state of Kansas wants to impact its traffic safety culture in order to put traffic safety in a positive light and make sure its citizens are thinking about it proactively rather than reactively. In order to accomplish this goal, the state has delegated much of the traffic safety responsibility to a district level. As these districts are formed, they will make decisions about specific traffic safety concerns; this research will guide them through the importance of traffic safety culture, a list of traffic safety culture programs rated on viability for Kansas, and current issues facing their district and the state as a whole.

This research will be the foundation upon which the Kansas Regional Safety Coalitions build their traffic safety culture strategies. Additionally, this can be a valuable tool for other states going through a similar breakdown of traffic safety responsibilities or for traffic safety professionals to use as a reference for current traffic safety programs in the United States.

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## APPENDIX A – Acronyms

<b>4 Es</b>	Education, Engineering, Enforcement, EMS
<b>BAC</b>	Blood Alcohol Content
<b>CMS (DMS)</b>	Changeable (Dynamic) Message Sign
<b>DAT</b>	Defensive Attribution Theory
<b>DMV</b>	Department of Motor Vehicles
<b>DOT</b>	Department of Transportation
<b>DUI (DWI)(OWI)</b>	Driving Under the Influence (Driving/Operating While Intoxicated)
<b>EMS (EMT)</b>	Emergency Medical Services (Transport)
<b>HSP</b>	Highway Safety Plan
<b>KDOT</b>	Kansas Department of Transportation
<b>MADD</b>	Mothers Against Drunk Driving
<b>MoDOT</b>	Missouri Department of Transportation
<b>MPO</b>	Metropolitan Planning Organization
<b>NHTSA</b>	National Highway Traffic Safety Administration
<b>OSHA</b>	Occupational Safety and Health Administration
<b>PDO</b>	Property Damage Only
<b>PSA</b>	Public Service Announcement
<b>RBT</b>	Random Breath Testing
<b>RSA</b>	Road Safety Audit
<b>RTPO</b>	Regional Transportation Planning Organization
<b>SHSP</b>	Strategic Highway Safety Plan
<b>THC</b>	Active compound in Marijuana (Tetrahydrocannabinol)
<b>TZD</b>	Toward Zero Deaths

## APPENDIX B – Safety Culture Survey Full Answers

<b>0.1 How would you define safety culture?</b>	
Arizona	- Safety culture is a way of doing business that keeps roadway Safety as the topmost priority.
	- Arizona DOT's safety culture is built upon individual as well as organizational beliefs, philosophy, knowledge, and experience in roadway safety.
Arkansas	- Safety culture is following the laws and rules of safe activity, dealing intelligibly with risky situations.
Delaware	- Safety culture is the amount of energy, effort, commitment, and resources put into managing safety.
Florida	- It is the way people behave on and around the roadway based on their experiences and based on the roadway environment.
	- It is the way we, as safety professionals, develop tools, experience new and innovative concepts, share information, and build programs or implement systematic approaches to designing, engineering, and maintaining roads.
	- Safety culture is the awareness, willingness, and attitude of people to address safety concerns and issues.
Hawaii	- Safety culture is everyone believing that saving lives is a top priority and supporting all worthwhile safety initiatives.
Idaho	- Safety culture is something that has to be impacted from within; It begins with an individual making a commitment to drive safely and to share the commitment with others.
	- This can relate to the structure of laws and legislation as well as personal or community mindsets. It should not be a way of life to accept a certain number of traffic deaths.
Illinois	- No response provided.
Indiana	- Safety culture is comprised of actions and activities relevant to building awareness in the need to act in a manner to improve traffic safety.
	- We need to change the mindset for engineers, maintenance workers, and others that they must only comply with the minimum requirements for safety.
Louisiana	- Safety culture is the integration of highway safety by each member of the DOT into everything they do from top level administration to lower level workers.
Maine	- Safety culture is what the business orientation is for an organization related to safety integration or society's notion of expected behaviors on the road for all users.

Massachusetts	- We view safety culture as how we can shift the way of thinking into integrating safety into the work we do.
	- We want all workers to understand how their job impacts safety.
Michigan	- Safety culture to us means support of management and staff to accomplish the mission of the highway safety office.
Minnesota	- Safety culture is people's attitudes, norms, and beliefs toward traffic safety: their actions and beliefs in terms of how it relates to safety.
Missouri	- Safety culture is a difficult thing to define. We are trying to make sure productivity does not usurp safety in the workplace.
Montana	- A culture where safety is inherent to all activities. A good safety culture is one in which safety valued and seen as a priority in every activity.
Nebraska	- Safety culture is centered on having a prevention mindset. We should get the public to understand the sense of urgency of the issue.
Nevada	- Safety culture is the complete "buy in" of every one of the need to eliminate fatalities and serious injuries on our roads. Complete buy in will be the only way we will ever reach Zero.
New York	- Traffic safety culture is how people view safety, both for themselves and others.
Ohio	- Safety culture is getting people to incorporate safety into all aspects of transportation planning and maintenance.
Oklahoma	- There is a lot of confusion in the safety community about what the priorities and goals should be; some people put safety above all else and some people who just view safety as a word.
Oregon	- Safety culture is the attitudes and practices of a population, based on what they know, and what they perceive as fact.
	- The culture may or may not be inclined to value safety.
Tennessee	- We need to first understand what is happening on our roadways before we can change the culture surrounding them.
Texas	- The beliefs, attitudes, perceived norms and perceived control of elected officials, transportation professionals and individual citizens as it relates to traffic safety.
Utah	- No response provided.
Washington	- Safety culture is the way people approach safety; their feeling towards safety on the roads.
	- Safety culture is more about the education than engineering.
Wisconsin	- Safety culture is how people view safety and how important it is in their area.

<b>1.0 How would you describe the state of your organization's internal safety culture?</b>	
Arizona	- Every employee at ADOT is urged to sign a "Driving Safely Home" pledge and following that there are monthly emails sent to employees highlighting traffic safety topics such as motorcycle safety, driving in dust storms, work zone safety, etc.
	- Awards are given to Departments for no time lost due to crashes.
Arkansas	- We hold weekly meetings and target those on safety as needed.
Delaware	- We are completely dedicated to handling behavioral safety.
	- We are also committed to improving our data management and traffic records.
Florida	- The State Safety Office is proactive in making management and staff aware of the performance goals of the SHSP on a quarterly basis along with presenting the same information to various groups around FDOT.
	- We use a data-driven approach to problem resolution which allows us to select appropriate countermeasures comprehensively using the 4 Es.
Hawaii	- I think our organization places a higher priority on capacity issues. My office manages the update and monitoring of the SHSP, supports the Highway Safety Office with funding, promotes substantive safety to infrastructure staff, etc.
Idaho	- We are very focused on safety and Towards Zero Deaths. We promote safety by engaging the 4 Es: engineering, education, enforcement, and emergency medical services.
Illinois	- No response provided.
Indiana	- Safety in our office is broken out into different parts such as our Human Resources department handling OSHA compliance and our office promoting traffic safety.
Louisiana	- We deal with safety every day. There are policies we must adhere to in our office: wearing seat belt in state vehicle, cell phone ban while driving, etc. Our office also promotes the safety programs that are both geared towards infrastructure and behavioral changes.
Maine	- Many parts of Maine DOT have a stake in safety and I think all areas take it seriously. There is an increasing emphasis coming from the executive level.
Massachusetts	- We certainly try to promote safety, we just haven't been very successful yet.
	- We try to communicate that safety is not an additional cost but just a matter of integrating safety into their jobs.
Michigan	- We have staff that is dedicated and committed to achieving our mission. We have very stable staff with longevity that keeps turnover low and helps retain continuity of the safety mission.
Minnesota	- No response provided.



Missouri	- We are very geared toward safety in our office. We encourage all employees to speak up in the event of safety concerns and try to foster an environment that promotes safety
	- We also publicize safety videos called "back to basics" for our supervisors to use in their morning meetings.
	- We put together posters that illustrate how safety is important for day to day life such as "Safety Glasses vs. Eye Patch."
Montana	- MDT values and promotes safety in all of its activities.
	- There could be more outreach to individuals to educate them on safety as a goal outside of the workplace though.
Nebraska	- We like to emphasize that everyone be passionate about the issues they are encouraging/trying to change. If those working to change the attitudes and behaviors don't believe in it, then there is little hope that they will be effective.
Nevada	- At NDOT, we are working with internal staff to change the mindset to one of always trying to incorporate safety mitigations into all projects.
	- For example, design standards have changed to include accel/decel and turn pockets on all state roads with posted speeds above 55 mph, edge line and center line rumble strips are now used on all projects, etc.
New Mexico	- We deal with everything related to traffic infrastructure safety.
	- We have had a history of not strategically spending money for our HSP and we are trying to change that.
New York	- We have a great safety culture for our field personnel. We spend a lot of time safety training both in in out of the field.
	- We have pockets of safety brilliance within our organization as well as some areas that need safety improvements.
Ohio	- Our LTAP office is co-located with our safety office and routinely collaborates on developing and administering safety projects.
	- We've also routinely collaborated with our operations and maintenance staffs over the years to implement various projects, raising the level of awareness for incorporating safety into a variety of DOT activities.
Oklahoma	- We prioritize the funds that we have available for the HSP to maximize the safety benefits.
Oregon	- Our office is tasked with improving safety culture as it relates to travel, so the group generally is oriented toward improving safety.
Tennessee	- Safety is a top down approach in Tennessee. When our commissioner goes out to speak to the public he emphasizes that safety is the #1 priority.
	- We have a safety office that all they do is safety related projects, both proactive and reactive projects.

Texas	- TxDOT supports transforming the safety culture to one that places safety as the highest priority.
	- We are striving to reduce highway fatalities and serious injuries on all public roads.
Utah	- No response provided.
Washington	- We have a strong work safety culture; we do regular safety meetings and put a lot of emphasis on looking out for those who work with you and reporting unsafe conditions.
Wisconsin	- In our office we dedicate lots of resources to safety. We have staff members whose jobs are specifically based around safety. We focus a lot on the 4 Es.

<b>2.0 Safety culture trends: what has changed in the last year or two in your state?</b>	
Arizona	- Arizona DOT has updated the SHSP with executive-level direction from the leaders of state agencies as well as federal agencies.
	- The focus is now on reducing fatalities and serious injuries in the identified emphasis areas on all public roads.
Arkansas	- No response provided.
Delaware	- In the last year we have had a 25% increase in fatal crashes.
	- We have also recently had more pedestrian crashes.
Florida	- Acceptance of Marijuana in Florida is becoming more prominent and the bill to legalize it was narrowly defeated in 2014, although medical marijuana is legal.
	- Florida has a high rate of bike crashes and was recently ranked the #1 bike crash state.
Hawaii	- We had a universal seat belt law took effect in 2013 and since we have tackled that we have had a stronger emphasis on distracted and impaired driving.
Idaho	- Distracted driving seems to be a large emerging issue. We have had great results in this area, primarily by engaging the private sector.
	- In Idaho there is the "CEO Challenge" for CEOs to engage their employees in safe driving behaviors in personal and corporate vehicles such as banning cell phone usage.
Illinois	- No response provided.
Indiana	- Texting and driving is an important emerging trend. The tough part about that is that most of the solutions are legislative and we at the DOT are unable to lobby for the safe solutions we need.
Louisiana	- In Louisiana we have had a big problem with impaired driving and refusal of breathalyzer testing. To combat this we have implemented a "no refusal" program where if they refuse the test then there is always a judge on call to sign warrants for officers to take blood to test for BAC levels.
	- The regional coalitions are gaining traction with improving safety partly because data is better and more reliable now than it used to be.
Maine	- There has been an increased emphasis on management and a new SHSP.
Massachusetts	- There is a trend for design and construction projects to conduct Road Safety Audits if the project is in a crash hotspot. This helps to get a more holistic view of what is going on in an area.
Michigan	- There has been a lot of focus on texting and driving, increasing safety belt compliance rate, as well as motorcycle driver safety.
Minnesota	- No response provided.
Missouri	- No response provided.

Montana	- Driving while under the influence of alcohol has become less and less acceptable in our culture. We have seen stricter impaired driving laws in recent years.
Nebraska	- No response provided.
Nevada	- We see a shift starting in the public sector where the Zero goal is gaining traction.
New Mexico	- Unfortunately our crash rates seem to be on the rise, especially for pedestrians - likely due to distracted driving.
New York	- We are focusing a lot more on planning our strategies.
	- We have a large pedestrian safety issue.
	- We are trying to have transparency with the public and make our data and goals more available to them.
Ohio	- We're seeing a lot more multi-agency collaboration on safety with the advent and strengthening of the SHSP requirements.
Oklahoma	- We have had a trend in our office for implementing lower cost systemic projects such as intersection sign and marking improvements.
Oregon	- The introduction of Marijuana to the list of legally used drugs has triggered much conversation in the public among professionals.
Tennessee	- Our most recent trends are inattentive driving, unrestrained driving, as well as a lot of wrong way entrances onto interstates.
Texas	- Safety has become the number one priority at TxDOT.
Utah	- No response provided.
Washington	- Sadly we have had some serious workplace crashes recently so we are trying to rectify that trend.
	- We are one of the states that has legalized Marijuana use and we are unsure right now how that legal change will affect our safety culture.
Wisconsin	- We have had a pretty strong culture of reducing drinking and driving and over the years we have had good reductions in crashes.
	- More recently in the urban portion of the state we have had a problem with wrong-way driving on interchanges.

<b>2.1 What kinds of initiatives does your government have at the state level?</b>	
Arizona	- We work in close cooperation with the Arizona Governor's Office for Highway Safety and other agencies to promote campaigns on work zone safety, seatbelt usage, anti-impaired driving, winter driving safety, summer/heat safety, wildfire awareness, and other initiatives.
	- One of our most well-known campaigns is "Pull Aside - Stay Alive" which is a dust storm safety program.
Arkansas	- No response provided.
Delaware	- No response provided.
Florida	- No response provided.
Hawaii	- No response provided.
Idaho	- Most notably, Idaho has implemented a "Courageous Voices Save Lives" program that engages the community in the safety practice and teaches them ways to speak up and positively impact safety.
Illinois	- Illinois has a "Click-it or Ticket" program, an alcohol awareness program, and others. Many of these are centered around safety during holidays such as: Labor Day, Independence Day, Memorial Day, etc.
	- Illinois also offers free motorcycle safety training.
Indiana	- No response provided.
Louisiana	- We have our SHSP, a Highway Safety Plan, creation of the Safety Center out of the office of our Research Center, and more.
Maine	- In terms of enforcement we get a lot of good press for our programs relating to teen drivers, seat belt usage, impaired/distracted driving, etc.
	- We have increased installation of centerline rumble strips, good DOT integration into the planning process, and ongoing conversations with the bicycle and pedestrian communities.
Massachusetts	- In terms of safety our initiatives are "in name only" meaning that our agency states safety as the #1 priority but it does not actually guide us towards being safer.
Michigan	- We are unable to lobby our legislature so instead we educate and have campaigns. We do PSAs, attend motorcycle events, support training, etc.
	- We also participate in the national mobilization of the "Click-it or Ticket" program as well as other national programs.
Minnesota	- At the state level, our main goals are completing the SHSP and increasing traffic safety awareness.
	- We have recently completed initial assessments of the improvements we have made in terms of impaired driving, aggressive driving, speeding, etc.
Missouri	- No response provided.
Montana	- No response provided.

Nebraska	- We try to be transparent in what we do and use change agents to try and alter behavior in those who might not see the impacts of safety in their daily lives.
Nevada	- No response provided.
New Mexico	- We oversee MPOs, conduct the "Safe Routes to School" program, we are starting to do bicycle and pedestrian counts on our transportation system, we do our own data management, etc.
New York	<p>- We work closely with the Governor's Traffic Safety Committee to handle NHTSA programs such as seat belt usage programs, impaired and distracted driving programs, work zone safety programs, etc.</p> <p>- We do billboard campaigns for both vehicle and pedestrian users. For example a pedestrian billboard we use is "See, Be Seen" for pedestrian visibility.</p>
Ohio	- We fund Ohio's safety programs at one of the highest levels in the nation and also have an extensive systemic safety program that we have been working on for years.
Oklahoma	- We do mostly systemic projects such as improving safety corridors.
Oregon	<p>- "All Roads Traffic Safety" seems to have raised the greatest level of conversation among internal staff.</p> <p>- We have a long running grant and media program to promote safety statewide.</p>
Tennessee	<p>- We create about 50 projects annually from data driven software and 50 more projects annually that are request driven.</p> <p>We also do intersection access studies, resurfacing programs, wrong way interchange safety initiatives, etc.</p>
Texas	<p>- We have a campaign for "123 Safe Days of Summer" with the motto "Being Safe Doesn't End at Quitting Time. Make it a Lifestyle."</p> <p>- TxDOT is participating in the Traffic Safety Culture Pooled Fund Support Project through the Western Transportation Institute.</p>
Utah	- No response provided.
Washington	- There is an emphasis on trying to minimize distracted driving which is our main concern. We also have programs in place for drinking and driving, seat belt use, etc.
Wisconsin	- No response provided.

<b>3.0 What current activities are in place for public awareness?</b>	
Arizona	- ADOT Provides opportunities for driver education through the Department of Motor Vehicles licensing process with training.
	- ADOT uses DMS (CMS) to notify road users of critical safety messages and for safety campaign use.
	- ADOT makes presentations, offers, workshops, and displays safety booths at in-state conferences and other meetings.
Arkansas	- We have televised campaign promoting work zone safety and the "Click It or Ticket" campaign.
Delaware	- We use paid media (billboards, online ads, TV and radio ads, sidewalk decals, etc.), earned media (press releases, interviews, special interest stories, etc.), and public outreach (we rely on our corporate partners to help get the messages out).
Florida	- FDOT has a Pedestrian and Bicycle Safety Coalition that coordinates communication across governmental agencies.
	- The Coalition's Communications Emphasis Area Team coordinates with partners and stakeholders to develop and implement our plan to improve public awareness of pedestrian and bicycle safety.
	- Materials and resources are developed based on problem identification and are translated into Spanish, Haitian, Creole, etc. based on demographics.
Hawaii	- We have a "Pedestrian Safety Month" in August, promotion of "Drive Sober or Get Pulled Over", "Click-it or Ticket" campaign, etc.
Idaho	- We do have a few public service programs but they are not widely used. On a more location specific basis there are youth based programs to encourage young drivers to start smart driving practices.
Illinois	- No response provided.
Indiana	- No response provided.
Louisiana	- We work closely with the Highway Safety Commission to further public outreach and awareness
	- We participate in their national mobilization efforts such as "Drive Sober or Get Pulled Over"
	- We are currently working to create a Communication Council that will bring together different partners and departments to coordinate campaigns across agencies.
Maine	- Maine has Work Zone safety emphasis, outreach for teen drivers, seat belt usage, impaired driving, distracted driving, etc.
	- Maine DOT also holds an impaired drivers summit and publishes a crash data publication.
Massachusetts	- We are starting a state-wide effort for bicycle and pedestrian safety called "Share the Road." This, like many others is a multi-agency effort to improve safety.

Michigan	- We put on a "Peer-to-Peer" program for high schoolers where the students design campaigns to target their peers for highway safety matters.
	- We offer motorcycle training and hand out high visibility vests to participants.
	- We have a Governor's Traffic Safety Advisor's Commission that is made up of many different departments and their job is to coordinate highway safety matters.
Minnesota	- We run a lot of campaigns mostly through the Governor's Highway Administration.
Missouri	- Most of the initiatives go through the division of highway safety; they put out the ads and PSAs.
	- There is a Blue-Ribbon Safety Panel which incorporates all enforcement agencies to communicate safety concerns with the public.
Montana	- Montana is currently promoting a "Vision Zero" campaign where no deaths or serious injuries are acceptable in our state.
	-MDT is working with education, engineering, enforcement, and emergency services to influence traffic safety culture.
	-MDT is also working through the Montana Behavior Initiative (MBI) to involve students in traffic safety activities.
Nebraska	- We use different kinds of media to target different key audiences; for Millennials and younger generations we use social media and for males age 18-34 sports marketing has been found to be very effective.
Nevada	- No response provided.
New Mexico	- In NM we do a lot of campaigns directed at seat belt usage, drinking and driving, impaired driving, etc.
New York	- We have media blitzes throughout the year on all of our major programs through use of social media, billboards, PSAs, etc.
Ohio	- We are developing a marketing plan for external communication.
	- We also recently began using our freeway message signs and portable message boards to post traffic death information and specific safety messages.
Oklahoma	- We fund a motorcycle safety education course provided by the Highway Patrol.
	- We also put out PSAs and campaigns.
Oregon	- We provide numerous media messages through public channels promoting the most important driving behaviors.
Tennessee	- No response provided.
Texas	- We have a comprehensive Public Information and Education program that includes paid advertising, news media, radio, TV, PSAs, billboards, online ads, etc.
Utah	- No response provided.



Washington	- We have several campaigns each year for seat belt use ("Click-It or Ticket"), distracted driving, etc.
	- Those campaigns use advertisements and have accompanying messages on CMS.
Wisconsin	- Our DMV and State Patrol manage and work with NHTSA for public awareness. We have outreach endeavors for impaired driving, young drivers, etc.
	- Wisconsin is developing a cell phone application called "Drive Sober" that will help people realize when they should and shouldn't be driving.

<b>4.0 How do you get information to/from the public?</b>	
Arizona	- ADOT uses media/press releases, website, GovDelivery (safety messages to subscribed members from the public) flyers, video clips, posters, PSAs on statewide TV and radio stations, public events, etc.
Arkansas	- In Arkansas we use websites, message boards, public meetings, local radio, etc.
Delaware	- We use media, websites, press statements, letter to the editors, etc.
Florida	- We use social media, digital media, paid media, outreach and education materials (print and promotional), local and regional events, sports marketing, etc.
Hawaii	- We use PSAs on television, radio, and in movie theaters, press conferences, proclamations, websites, brochures, etc.
Idaho	- We communicate through PSAs, community outreach programs, law enforcement liaisons and the Idaho Highway Safety Coalition engages local medical communities and the Department of Health.
	- We conduct a public opinion survey that we do each year on what the public wants in terms of safety regulations and their thoughts and beliefs on particular issues.
	- Idaho has an outreach program called the "One-Pager" where we hand out one-page documents with facts and figures about safety to the public as events, fairs, etc.
Illinois	- Illinois uses ads for TV and radio, the news, social media, our website, etc.
Indiana	- No response provided.
Louisiana	- We use social media, websites, our Regional Coalitions serve as a liaison, phone calls, media, email, etc.
Maine	- We use press statements and our website to get information out and the public will often get information back to us through individual complaints.
Massachusetts	- We utilize social media and CMS along highways. We utilize NHTSA for media.
	- The public reaches out to us by calls, emails, social media, etc.
	- We are trying to be proactive in terms of promoting safety before tragic events mandate it.
Michigan	- We communicate via website, PSAs, Twitter, Facebook, news releases, radio, etc.
	- The public is welcome to come to the governor's commission meetings and contact our partners to engage in all aspects of safety.
Minnesota	- We use our website, Twitter, Facebook, etc.
	- We hold regional and statewide conferences to reach out to localities to see what their concerns are and how effective we are being.

Missouri	- Press releases are still our primary method of communication with the public but in the last few years we have also amped up our social media usage.
	- Our Traveler Information Map is the best way for the public to get information on current road conditions.
Montana	- We use press events and statements, press releases, social media, text alerts, billboards, CMS, radio, TV, etc.
Nebraska	- We use TV, Print, social media, letters, and our website to reach out to the public.
	- We get feedback from our community coalitions and other agencies as well as phone calls, emails, etc.
Nevada	- We do a lot of web-based communication.
New Mexico	- We have a lot of contact with the MPOs and RTPOs and they do most of the coordination with the public directly.
New York	- We get a lot of feedback on project specific information but have no organized public data collection.
Ohio	- We use traditional means such as press releases, events and media interviews, as well as Facebook and Twitter and freeway and DMS.
Oregon	- We aggressively place and promote through most media, with the exception of text alerts.
Oklahoma	- No response provided.
Tennessee	- We try to minimize communication with the public. Most public concerns go through the community relations officers in each region and then get fed back to us.
Texas	- We use a variety of tools to communicate with the public such as press releases, press conferences, websites, social media, community outreach events, health fairs, local events, distributed printed educational materials, etc.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- We use websites, flyers, social media, communications and safety outreach, etc.

<b>4.1 Do you use social media to relate to the public?</b>	
Arizona	- Arizona has more than 65,000 Twitter followers and nearly 13,000 likes on Facebook.
Arkansas	- Yes we use Twitter and Facebook.
Delaware	- Yes we do.
Florida	- Yes, we use Facebook, Twitter, and an alert system called "Alert Today Florida".
Hawaii	- Yes we do.
Idaho	- Yes we do.
Illinois	-Yes: Facebook and Twitter are used for both sending and receiving information
Indiana	- No response provided.
Louisiana	-Yes we do.
Maine	- Yes; a number of state agencies and local law enforcement agencies have active Facebook accounts.
Massachusetts	- Yes we do.
Michigan	- Yes we do.
Minnesota	- Yes we do. Each of our offices has its own social media pages.
Missouri	- Yes we do.
Montana	- Yes we do.
Nebraska	- Yes we do.
Nevada	- No response provided.
New Mexico	- Yes we do.
New York	- Yes we do.
Ohio	- Yes we do.
Oklahoma	- No response provided.
Oregon	-Yes we do.
Tennessee	- No response provided.
Texas	- Yes we do. We use various popular social media sites such as Facebook and Twitter.
Utah	- No response provided.
Washington	- Yes we do.
Wisconsin	- Yes we do.

<b>4.2 Who are some of your go-to partners when it comes to promoting transportation safety in your state?</b>	
Arizona	- There are several partners throughout the state promoting transportation safety in Arizona: the Governor's office of Highway Safety, the Arizona Department of Public Safety, the Federal Highway Administration, the National Weather Service, and others participate in various activities with the same goal of Toward Zero Deaths.
Arkansas	- We partner with the Arkansas State Police (ASP) and the Arkansas Department of Health (ADH).
Delaware	- We partner with the Department of Transportation, Delaware State Police, Local Law Enforcement, EMS, Trauma Centers, "Safe Kids Delaware", Corporate Partners, National Guard, Dover Air Base, University of Delaware, etc.
Florida	- We partner with coalition members, state and local agencies, safety advocates, public officials, media partners, etc.
Hawaii	- We partner with the State Department of Health, County Police Departments, FHWA Hawaii Division, County Transportation Departments, County Prosecutors, MADD Hawaii, County Fire Departments, etc.
Idaho	- We work closely with law enforcement, Idaho Highway Safety Coalition, Department of Health, the Medical Community, etc.
Illinois	- No response provided.
Indiana	- Our partners are the Criminal Justice Institute, State Police, Department of Health, Department of Public Safety, Department of Education, MPOs, Federal Highway Administration, etc.
Louisiana	- We partner with the Highway Safety Commission, State Police, our Regional Coalitions, Operation Life Saver, Statewide SHSP implementation team, emphasis area team leaders, MPOs, etc.
Maine	- Our partners are AAA, BMV (for licensing and to show videos and distribute safety materials), tourist visitor centers, TV/newspapers, etc.
Massachusetts	- We partner with the Department of Safety and Public Security, NHTSA, Department of Public Health, Local law enforcement, EMS, etc.
Michigan	- We partner with AAA, Department of Education, Department of Community Health, State Police, Highway Safety and Planning Group, etc.
Minnesota	- We partner with the Governors' Highway Administration for most of our campaign work.
Missouri	- We work closely with the Highway Patrol, Division of Highway Safety, Department of Public Safety, our contractors for construction and design, etc.

Montana	- We work with local law enforcement, Montana Highway Patrol, EMS, Driver's Education, Buckle Up Montana Coalitions, DUI Task Forces, Attorney General's Office, Transportation Planners, Motorcycle Association, "Bike/Walk Montana," Montana Behavior Initiative, etc.
Nebraska	- Our partners are the Omaha Safety Council, Nebraska Safety Council, AAA Nebraska, "Project Extra Mile" (which focuses on underage drinking), Department of Behavioral Health, Department of Health and Human Services, Department of Motor Vehicles, etc.
Nevada	- We work closely with the Office of Traffic Safety, Executive Committee, Technical Working Group, etc.
New Mexico	- We partner with police departments, Driver's Education programs, NHTSA, MPOs, etc.
New York	- We partner with the Governor's Safety Committee, Department of Health, County Traffic Safety Boards, Advocacy Groups, MPOs, etc.
Ohio	- We partner with LTAP, MPOs, law enforcement, Safe Communities, etc.
Oklahoma	- We partner with the Highway Safety Office under the Department of Public Safety, Highway Patrol, etc.
Oregon	- Law enforcement courts, local government, etc.
Tennessee	- We partner with the Governor's Highway Safety Program, maintenance, design, construction, Right-of-way, traffic engineering, local governments, municipalities, roadway superintendents, EMS, police, etc.
Texas	- We often partner with law enforcement agencies, health care providers, non-profit and for-profit organizations, educational institutions, advocacy groups, local to national governments, NHTSA, etc.
Utah	- No response provided.
Washington	- Our usual partners are Traffic Safety Commission, State Highway Patrol, Department of Health, etc.
Wisconsin	- We partner with Department of Public Health, State Patrol, engineers at the DOT, the local Universities, Federal Motor Carrier, EMS agencies, MPOs, etc.

<b>4.3 Do you have a way to get more information to the public (children and adults)?</b>	
Arizona	- We deliver safety presentations to different types of audiences, sharing safety awareness information and materials through the ADOT website.
Arkansas	- No response provided.
Delaware	- No response provided.
Florida	- We primarily use websites to get more info to the public.
Hawaii	- We primarily use websites to get more info to the public.
Idaho	- We do go to schools through our partnerships. We are developing a speaking bureau for just this purpose so we can reach schools, clubs, and communities with clear, consistent, well thought-out content with accurate statistics.
Illinois	- Illinois has a large amount of programs directed at outreach. There are individuals whose job is specifically to put on programs at community centers and schools. Most of these programs are focused on impacting safety for teenage drivers.
Indiana	- We have recently done some outreach for our strategic highway safety plan to get comments from local leaders and transportation professionals
	- We are trying to promote the message that driving is a serious task that needs a person's full attention.
Louisiana	- This is done more at the regional level than at the state as a whole. There are a few statewide programs that target youth culture such as our "Sudden Impact" or "Operation Life Saver" programs.
	- In Louisiana we don't have great access to the schools from the state level.
Maine	- We use various websites to get more information to the public.
	- We also look forward to having basic online crash data available to the public soon.
Massachusetts	- We do school programs for things like "Safe Routes to School." Additionally we target younger grade-schoolers for our bike and pedestrian programs.
	- We use English as a Second Language (ESL) as a way to promote safety amongst minorities. For this we find the individual needs of each community and then put together a video of content for them to base their lessons on.
Michigan	- We do this through our "Strive for a Safer Drive" peer to peer program targeted at increased safety for youth drivers.
	- There is a program, "Ford Driving Skills for Life," that gets put on by Ford where students get to ride with professional drivers in race cars. The drivers go through simulations where they are made drive like they are drunk, texting, etc. so that the students can see the real dangers.
Minnesota	- We have our TZD coordinators conduct most of our outreach geared primarily towards adults with the exception of new drivers. Our programs are skewed towards the higher risk crash groups: young males, motorcyclists, and aging drivers.

Missouri	- We run a "Battle of the Belt" competition for high school students to promote seat belt usage where each school competes to have the highest rate of belt usage.
	- We offer free seminars for installation of car seats, and other safety related concerns.
	- We are also involved in crash staging with the Highway Patrol for all school levels.
Montana	- We use local coordinators to provide outreach. "Buckle Up Montana" reaches out for matters pertaining to occupant protection. DUI Task Force coordinators work in their local counties.
Nebraska	- We put on seminars through local law enforcement agencies and advocacy groups.
Nevada	- No response provided.
New Mexico	- No response provided.
New York	- We have done a traffic signal mock-up in schools to teach students how to use pedestrian signals.
Ohio	- No response provided.
Oklahoma	- No response provided.
Oregon	- We primarily use websites to get more information to the public.
Tennessee	- Campaigns that go through schools are based out of our Governor's Highway Safety Program.
Texas	- We have several websites and support various outreach efforts and campaigns.
Utah	- No response provided.
Washington	- We can have seminars; we just usually don't very often. We usually have a booth at the state fair where we have information on what we do and our upcoming projects. The state patrol usually has a presence at fairs as well with visual aids.
Wisconsin	- No response provided.



<b>5.0 Do you provide informational seminars at schools or publish handouts to keep at local schools?</b>	
Arizona	- Arizona is quite judicious on the use of schools to distribute information to the public, in part because of the instructional demands placed upon schools. However, critical information will be distributed through schools for broad-based safety issues.
Arkansas	- No response provided.
Delaware	- Every campaign mobilization comes with flyers and posters that get distributed through our partners.
	- We do have partners that we fund such as the Delaware State Police that go into schools and do programs.
Florida	- Yes we do this, mostly through our programs for "Safe Routes to School", "Teen Drive with Care", and "Hillsborough County Sheriff's Office Teen Outreach".
Hawaii	- Yes; presentations are provided by highway safety funding grantees.
Idaho	- We do create one-page handouts but those are more for community use than to keep at schools.
Illinois	- No response provided.
Indiana	- There is a seminar we hold yearly at Purdue University called "Road School" where counties, local leaders, and consultants get together to collaborate on safety issues
Louisiana	- No response provided.
Maine	- Most of that is handled through the Bureau of Highway Safety.
	- Our SHSP seeks to further engage the Department of Education for programs.
	- We also work with an underage drinking task force that is led by the Office of Substance Abuse to put out educational info.
Massachusetts	- For our bike and pedestrian program we send home printed information with grade schoolers for parents to read.
Michigan	- No response provided.
Minnesota	- We do provide material that can be used in curriculum at schools but often is not.
Montana	- We provide handouts for local school usage. Driver's Education programs use a lot of DOT information for their classes.
Nebraska	- We do not specifically go out and talk to schools and communities because of staff and resource limitations; instead we provide grant funding for agencies to reach out.
Nevada	- We have Consultant staff that goes to the High Schools and provides traffic safety related information separate from the "Zero Teen" program. This outreach uses the "drunk goggles" with the students to target drunk driving concerns.
New Mexico	- No response provided.
New York	- Our programs are pretty limited for that.

Ohio	- We do not do seminars at schools.
Oklahoma	- No response provided.
Oregon	- We provide a host of media targeted at children and parents that are distributed through schools and partners that work in schools.
Tennessee	- No response provided.
Texas	- We support and participate in outreach efforts including informational presentations, distribution of printed materials, video and audio.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- No response provided.

<b>5.1 What kind of resources do you devote towards that outreach?</b>	
Arizona	- Resources and funding for outreach activities come from state as well as federal partners and are coordinated through the ADOT Communications Office.
Arkansas	- No response provided.
Delaware	- No response provided.
Florida	- The "Teen Drive With Care" program is funded by a highway safety grant; the "Safe Routes to School" program is funded by Highway Safety Improvement Funds.
Hawaii	- We use safety funds in the form of grants.
Idaho	- Funds in Illinois are mainly allocated for enforcement. Additional funding goes towards paid media, and safety campaigns.
Illinois	- No response provided.
Indiana	- No response provided.
Louisiana	- No response provided.
Maine	- A major outreach program we are pursuing into schools is having students drive on a simulator that includes distracted and impaired driving scenarios.
Massachusetts	- No response provided.
Michigan	- No response provided.
Minnesota	- All TZD coordinators' salaries are paid for with state safety funds.
Missouri	- No response provided.
Montana	- No response provided.
Nebraska	- No response provided.
Nevada	- We provide about \$2 Million in funding each year towards our "Zero Fatalities" campaign via HSIP funds.
	- We also provide the Office of Traffic Safety with \$3 Million per year for their grant programs.
New Mexico	- No response provided.
New York	- No response provided.
Ohio	- No response provided.
Oklahoma	- No response provided.
Oregon	- No response provided.
Tennessee	- No response provided.
Texas	- We devote time and efforts towards these outreach events.
	- We do track information usage through staff reporting, performance reporting, professional conferences, as well as our electronic project management systems.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- No response provided.

<b>6.0 What content are you trying to get out and who creates the content?</b>	
Arizona	- We are trying to promote general roadway safety awareness, safety in adverse weather conditions, work zone safety, pedestrian/bike safety, etc.
	- ADOT Communications creates this content.
Arkansas	- No response provided.
Delaware	- All the content is created within the Office of Highway Safety but is run through a Public Relations firm to reach out most effectively to the public.
	- The content is all data driven.
Florida	- No response provided.
Hawaii	- No response provided.
Idaho	- The Office of Highway Safety comes up with the content from our crash data, public surveys and our highway research program.
Illinois	- The content is created through a collaborative effort and is loosely based on the state's SHSP. It involves participants from the DOT, law enforcement, and Safety Office.
	- The content is generated from crash data as it applies to a matrix that the Illinois DOT uses.
Indiana	- The content for our SHSP is primarily driven by crash history analysis. Some of our biggest issues are lane departure crashes, intersection crashes, and other specific issues.
Louisiana	- Content is driven by data and agreed upon by our partners. We are improving our SHSP to be more strategic with where we spend our money than we have been in the past.
Maine	- The agencies work cooperatively with each other to share information and make the most collaborative programs possible.
Massachusetts	- We have an executive committee comprised of the Secretary of Health, Secretary of Public Safety, and Secretary of Transportation that sets the agenda of the SHSP.
	- Additionally there are committees for each strategy within the plan that are allowed to work independently as long as their focus is within the safety plan.
Michigan	- No response provided.
Minnesota	- The content is created by crash data and we usually don't break down our goals into specific areas because we focus on our overall goals instead. These goals are based on our TZD plan.
Missouri	- No response provided.
Montana	- No response provided.
Nebraska	- We try to focus on where we can get the most impact for the least amount of input for our programs, meaning that we do have priority counties for safety. Crash data is the primary source used for creating our hierarchy of need.

Nevada	- The DOT has a main public outreach consultant team that creates content for all the media campaigns and also do public outreach events.
New Mexico	- No response provided.
New York	- We have content from different sources such as: the DOT creating the work zone safety content and NHTSA and the Governor's Safety Committee create the behavioral safety content.
Ohio	- No response provided.
Oklahoma	- No response provided.
Oregon	- We create content with a contract communications firm, in-house graphic arts shop, and based on NHTSA materials.
Tennessee	- 50% of our projects are data-driven so crash hotspots create the content there.
	- The 50% that is request driven must go through an approval matrix.
	- Even when requests don't get approved we try to push information down to a local level to see if they have resources to improve the situation.
Texas	- Our content is based out of the goal of zero injuries and zero fatalities so we try to pursue content that can have the biggest impact on that.
Washington	- The Traffic Safety Commission creates the content. Our program is very data driven.
Wisconsin	- No response provided.

<b>7.0 Do you have any initiatives to change state policies?</b>	
Arizona	- No response provided.
Arkansas	- We have initiatives to institute a primary seat belt law, a no texting and driving law, and a strict handheld device law for young drivers.
Delaware	- We do not currently have any initiatives to change state policies.
Florida	- No response provided.
Hawaii	- Our initiatives are to increase compliance with: Repeat Offender and Open Container Laws, Universal Helmet Law for Motorcycles, and Truck Bed Law (prohibits persons from riding in the bed of pickup trucks).
Idaho	- We have an impaired driving task force that is trying to change laws regarding excessive Blood Alcohol levels and ignition interlock on vehicles for repeat offenders.
	- Idaho is trying to achieve a primary seat belt law and mandatory helmet law for drivers 18 years and under.
Illinois	- We have initiatives almost every year to improve state safety laws.
Indiana	- We are currently in a dispute with NHTSA about the necessary number of hours of community service for repeat DUI offenders.
Louisiana	- We have strategies to try and take 18 year olds out of our bars, which they can currently legally enter, and to raise the fine for seat belt noncompliance.
	- We are trying to make our child restraint law are more stringent to protect children.
Maine	- None currently. We are looking into Marijuana/HTC limits as neighboring states change their drug laws but this is not an imminent thing.
Massachusetts	- The issue of a primary seat belt law comes up each year and one of the issues that we run in to is that we are unable to lobby for safer solutions.
	- The issue that dissolved the momentum for it was public concern about racial profiling with a primary seat belt law. Despite this, our seatbelt use is up 77%.
Michigan	- No response provided.
Minnesota	- We do not try to impact policies from the top down; instead we try to get feedback from the bottom up so that any legislation or policies that get implemented have public support.
Missouri	- Our current aim is to try to obtain more funding. We do actively support primary seat belt laws and distracted driving laws.
Montana	- No response provided.
Nebraska	- We have an initiative to have a primary seatbelt law.
	- We are a part of a code agency under the governor's office, which limits our power and effectiveness because the governor must sign off on all initiatives.

Nevada	- We are constantly working on changing existing laws to improve safety.
	- For example we are working on passing a primary seat belt law which has failed to even make it to the legislative session recently.
New Mexico	- Our traffic safety bureau has tried a few times to initiate a texting and driving law to no avail.
New York	- Our major initiative is updating our SHSP and creating action plans centered around major issues.
Ohio	- No, we have a very conservative state legislature that has not been interested in primary seat belt laws, etc.
Oklahoma	-There have been a handful of initiatives to get design statues revised such as implementing flashing yellow arrows.
Oregon	- No response provided.
Tennessee	- No response provided.
Texas	- No response provided.
Utah	- No response provided.
Washington	- We did have an initiative for distracted driving that did not pass but we will likely pursue again. We do have a law that prohibits calling and texting but nothing else.
Wisconsin	- We have a significant cross median crash problem in rural areas so we looked at changing policies for making median barriers standard.

<b>7.1 Do you have any recent legislative changes?</b>	
Arizona	- No response provided.
Arkansas	- We recently initiated our Stepped-Up Statewide Enforcement Plan aimed at drivers violating the texting law.
Delaware	- Recently we made improvements to our DUI laws that made us fall out of compliance with Federal DUI laws so in the recent legislative session we made changes to correct that.
Florida	- No response provided.
Hawaii	- The universal seat belt law went into effect in 2013 and the "Move Over or Get Pulled Over" legislation passed in 2012.
Idaho	- No response provided.
Illinois	- We have recently changed our primary seatbelt law to include passengers as well as drivers, lowered some of our standard speed limits, as well as passing distracted driving laws.
Indiana	- We do now have a primary seatbelt law.
Louisiana	- Most recently we implemented a primary seat belt law for back seat users.
Maine	- No response provided.
Massachusetts	- No response provided.
Michigan	- Recently our legislature repealed the helmet law to only be necessary for drivers under 21.
Minnesota	- We have had a lot of success in the last 5 years filling our legislative voids as it relates to traffic safety such as: graduated licensing and seat belt laws.
Missouri	- No response provided.
Montana	- Recently our DUI fines and fees were increased.
Nebraska	- No we do not.
	- Our motorcycle helmet law comes under attack in the legislature each year due to the large motorcycle lobby and the lack of public understanding of crash consequences.
Nevada	- We were successful in getting "pedestrian safety zones" passed as well as making it illegal to pass or make U-turns in active school zones.
	- Another recent change was to increase the penalties for hit and run offenses as this type of crash typically involves impairment.
New Mexico	- No response provided.
New York	- Most recently, we have passed "Move Over" legislation for emergency vehicles.
	- We have a very strong legislative base for traffic safety laws including primary seat belt laws, a mandatory motorcycle helmet law, distracted driving laws, etc.
Ohio	- No response provided.



Oklahoma	- There is a law against texting going into effect. We don't know yet how effective it can be because it is hard to make such a law that is enforceable.
Oregon	- No response provided.
Tennessee	- No response provided.
Texas	- We have recently tried to pass laws for texting and driving. Nothing has come of it yet though.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- No response provided.

<b>7.2 If the DOT would be to change the laws, what would they change?</b>	
Arizona	- No response provided.
Arkansas	- No response provided.
Delaware	- No response provided.
Florida	- No response provided.
Hawaii	- No response provided.
Idaho	- We would want to change laws to be more strict for distracted driving, strengthen the graduated licensing program as well as be more strict for child restraint laws.
Illinois	- No response provided.
Indiana	- No response provided.
Louisiana	- No response provided.
Maine	- No response provided.
Massachusetts	- The DOT would certainly change the laws to have a primary seat belt law.
Michigan	- No response provided.
Minnesota	- The DOT would likely want to implement a repeat DWI repeat offender law as well as a mandatory motorcycle helmet law.
Missouri	- The DOT would likely change the seat belt law; the vast majority of fatalities in this state are unbelted.
Montana	- MDT supports legislative change toward a primary seat belt law.
Nebraska	- We would implement a primary seat belt law.
Nevada	- If we could change one thing right now, it would be the lack of a primary seat belt law.
New Mexico	- No response provided.
New York	- We are trying to develop a better graduated licensing program as well as enable use of automated enforcement.
Ohio	- We would likely implement a primary seat belt law.
Oklahoma	- No response provided.
Oregon	- No response provided.
Tennessee	- No response provided.
Texas	- The DOT would likely put in place a mandatory motorcycle helmet law for all riders.
Utah	- No response provided.
Washington	- We would tighten up the laws regarding distracted driving and perhaps find a way to detect active levels of THC for marijuana.
Wisconsin	- We would increase severity for drunk driving repeat offenders.
	- We are also trying to implement a distracted driving law.

<b>8.0 In light of the recent national push Toward Zero Deaths (TZD) do you sense any sort of urgency as it relates to changing the safety culture in your state?</b>	
Arizona	- Yes; it is a continuous process. Arizona's 2014 vision statement for the SHSP is: "Toward Zero Deaths by Reducing Crashes for a Safer Arizona."
Arkansas	- Yes we are a TZD state but as of now there is no real sense of urgency.
Delaware	- We are a TZD state and have adopted it for our SHSP and are on track with those goals.
Florida	- Traffic Safety is a priority at the Florida Department of Transportation. The push towards zero deaths specifically has no impact on our efforts although that is our goal.
Hawaii	- Not really, however the ultimate goal of our SHSP is TZD.
Idaho	- Yes, we have totally embraced TZD in Idaho and our whole SHSP is centered around that concept. It is unacceptable to have any fatalities.
Illinois	- No response provided.
Indiana	- TZD is the driving force behind initiatives to improve safety in Indiana. We use it as a tool to discuss safety with the public.
Louisiana	- We do feel the urgency to reduce the number of fatalities at the state level but once you get outside of the safety community the urgency does die down.
	- We are working to promote this goal at our meetings from top level down.
Maine	- Not urgency per se but certainly a continuing increase in the degree of attention we put into our plans.
Massachusetts	- We are technically a TZD state, but so far nothing has come of that. We have hopes that it will soon encourage a sense of urgency for safety.
Michigan	- Our upper level management pushes TZD and that is what we are working towards but it hasn't impacted the structure or our timeline yet.
Minnesota	- We fully embrace TZD and it drives most things we do from our goals to our outreach programs.
Missouri	- We have worked with the Blueprint For Public Safety for a long time to set a target for traffic fatalities. We have met that goal for the last several years and we are ahead of schedule in terms of reducing fatalities.
Montana	- MDT is supporting the pool-funded effort for Traffic Safety Culture research.
Nebraska	- We are very fond of the TZD program and would like to see it become a reality.
	-Our citizens sometimes challenge this until they put it into perspective by thinking about their own family.
Nevada	- Changing culture will take time and perseverance so I would say there is no urgency. This will be a long fought campaign and we will have to be vigilant and undeterred in our efforts to reach our goal of zero.

New Mexico	- No we do not. Since our crashes are on the rise it seems impractical to adopt TZD when our goals are just to keep cashes from rising.
New York	- We have had fairly aggressive goals in the past so we are unsure how TZD will really impact us.
Ohio	- I wouldn't say there is an urgency per se; we have already put a tremendous amount of resources into safety projects and programs before TZD was initiated and will continue to do so.
Oklahoma	- No response provided.
Oregon	- ODOT has worked toward this goal for over 20 years but has not put an end date on the objective.
	- Urgency would be toward keeping the focus on improving the systems that lead to zero deaths and injuries.
Tennessee	- We have adopted TZD and are fans of it. We understand that achieving zero deaths is near impossible but the goal of pushing towards zero is a great goal.
Texas	- No response provided.
Utah	- No response provided.
Washington	- We are working with the Western Transportation Institute on the Pooled-Fund Traffic Safety Study.
Wisconsin	- In our state it seems more of a tagline than a reality; there is not really any urgency here.

<b>9.0 What in your personal opinion is the most critical safety culture problem?</b>	
Arizona	- There are critical behavioral issues related to traffic fatalities and injuries that are beyond the control of any agency; rather it is a collaborative multidisciplinary challenge. Safety culture is evolving and we strive to enhance our communication, collaboration, and cooperation with statewide stakeholders to make Arizona roadways safer.
Arkansas	- I think education is the first priority for any safety-related matter. Children should be educated better with respect to the safety considerations and be trained on how to deal with the risks.
Delaware	- The biggest problem is the nonchalant attitude of the public and how they don't understand the seriousness of their choices on the road.
Florida	- One fatality is too many; each fatality is a PERSON that has died, not a statistic.
	- This is a matter of personal responsibility. If more people drove, walked, and biked responsibly, with the safety of others in mind, the magnitude of the problem would reduce considerably.
Hawaii	- The most crucial problem is passing controversial laws and the inability to enforce all the safety laws in place.
Idaho	- The community level of acceptance of traffic fatalities. The biggest challenge is getting people to think that traffic fatalities are not a way of life.
Illinois	- Distracted driving is the largest issue.
Indiana	- Distracted driving is by far the largest issue. Younger people are chained to their cell phones and don't realize the safety implications of that.
Louisiana	- The largest issue is lack of awareness and knowledge, i.e. complacency. People don't think about how safety impacts everyday life and the magnitude of the safety problem.
	- There are also several personal rights issues that cause people to not comply with the safety regulations laid out by the government.
Maine	- Education is the biggest problem: both for the public so that they endorse the need for safety to make a difference, and for all those within stakeholder organizations to make sure everyone is engaged in the effort.
Massachusetts	- A lack of integration of safety. If we integrate safety into all the work we do we would have a better safety culture. This includes maintenance, design, policies, etc.
Michigan	- Funding is our most critical problem. It is a struggle to build a safety plan when you don't know what your level of funding is going to be.
	- The "Buy America" program also makes it more challenging to do our jobs because many of our projects get held up due to necessity of American-made products.

Minnesota	- Apathy is the biggest problem; people still view fatalities as a byproduct of a transportation network.
	- Additionally, many people's receptiveness to innovative traffic safety might infringe on their individual beliefs.
Missouri	- The largest problem is the rush to do everything quickly. People are too often rewarded for quick fixes. It is the common mindset that it is better to finish a job quickly than set up proper safety situations. This is a mindset that we need to change.
Montana	- High risk groups are extremely hard to reach out to and behavioral change amongst them is extremely difficult. The most critical problem is changing the norm of those who engage in risky behavior.
Nebraska	- Lack of clear leadership from the top is the most critical problem and has been for the last 20 years. It is within the power of the governor and other leaders to create a culture of the public accepting safety.
Nevada	- In my opinion the most critical component to the changing of culture is apathy. People have accepted the high number of fatalities as commonplace and this must change before we will see the culture change.
New Mexico	- A lot of our issues deal with the fact that New Mexico is a very poor state and as a result our infrastructure, laws, and resulting culture have suffered.
New York	- The most critical problem is how do we get the public to develop a sense of shared responsibility for safety.
Ohio	- The largest issue is engaging the public more in the role they play in preventing crashes.
Oklahoma	- The biggest problem is solutions that put off the appearance of results instead of actual substance. We need to account for regression to the mean to make actual change instead of just appeasing the public.
Oregon	- We move from one campaign to the next, choosing to focus on sustainability, congestion, eco-friendly solutions, etc., and lose sight of what is really important: making travel completely safe from death and serious injury for all Oregonians.
Tennessee	- In general the biggest problem is people not abiding by the law including but not limited to seat belt usage, speeding, drinking and driving, etc.
Texas	- The public lack of knowledge and awareness about traffic safety issues is one of the most critical problems
	- Additionally, the public's acquiescence to the inevitability of fatal and injury crashes as part of the cost & consequences of modern transportation choices is another serious problem
	- In general, the public is just not aware of the significance or risks relating to traffic safety.
Utah	- No response provided.

Washington	- the public not realizing how serious the issue of traffic safety and how big the magnitude of the problem is, is the most serious issue.
Wisconsin	- Distracted driving and the overload of information drivers experience in the car is the most critical problem.

<b>Programs/Campaigns Named in the Survey</b>	
Arizona	- "Driving Safely Home"
	- "Pull Aside - Stay Alive"
Arkansas	"Click It or Ticket"
Delaware	- No response provided.
Florida	- "Alert Today Florida"
	- "Safe Routes to School"
	- "Teen Drive With Care"
	- "Hillsborough County Sheriff's Office Teen Outreach"
Hawaii	- "Drive Sober or Get Pulled Over"
	- "Click-It or Ticket"
Idaho	- "CEO Challenge"
	- "Courageous Voices Save Lives"
	- "One-Pager"
Illinois	- "Click-It or Ticket"
Indiana	- "Road School"
Louisiana	- "Drive Sober or Get Pulled Over"
	- "Sudden Impact"
	- "Operation Life Saver"
Maine	- No response provided.
Massachusetts	- "Share the Road"
	- "Safe Routes to School"
Michigan	- "Click-It or Ticket"
	- "Peer-to-Peer"
	- "Strive for a Safer Drive"
	- "Ford Driving Skills for Life"
Missouri	- "Battle of the Belt"
Montana	- "Vision Zero"
	- "Buckle Up Montana"
	- "Transportation Pooled Fund Program" through the Western Transportation Institute
Nebraska	- "Project Extra Mile"
Nevada	- "Zero Teen"
New Mexico	- "Safe Routes to School"
New York	- "See Be Seen"
Ohio	- "Safe Communities"
Oklahoma	- No response provided.
Oregon	- "All Roads Traffic Safety"
Tennessee	- No response provided.
Texas	- "123 Safe Days of Summer"



Utah	- No response provided.
Washington	- "Transportation Pooled Fund Program" through the Western Transportation Institute
	- "Click-It or Ticket"
Wisconsin	- No response provided.